

**Patient-centred communication and
patient education:
a multimodal social semiotic approach**

by

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Abstract

This study explores the phenomenon of patient-centred communication within the South African health context. Patient-centred communication involves several distinct but interlinked elements, namely, taking a holistic approach to illness, ‘seeing’ through the patient’s eyes, ‘co-constructing’ a shared understanding or therapeutic alliance, and sharing decision-making and responsibility where possible. While adopted by medical curricula across the world, a lack of conceptual clarity is common among students, educators, researchers and policy-makers. Furthermore, little research has been done that accounts for contextual factors and non-western settings.

This study looks at how fourth year medical students operationalise the ‘classroom-taught’ principles of patient-centred communication during a health education encounter with patients. Drawing on a qualitative, interpretivist paradigm, the research focuses on communication in the context of language barriers, cultural value differences and socio-economic inequality. This study views students’ multimodal health education artefacts as instances of ‘informed flexibility’ to patients’ needs and challenges.

The research is located within a Pharmacology curriculum activity where medical students produce personalized health promotion artefacts for rheumatic heart disease patients. Their artefacts are instances of patient-centred communication as well as instances of purposeful pedagogic recontextualisation, in that they realise both epistemic and relational dimensions of health education. Students also write a critique on the process, reflecting on the patient interview and motivating their design choices. Taking a multimodal social semiotic approach, the study draws on Bezemer and Kress’ semiotic principles of recontextualisation (2008) for analysis of artefacts. Thematic analysis of students’ critical reflections as well as follow-up interviews with their patients illuminate the context and assumptions underpinning students’ design choices.

The study is significant in several ways. It highlights the complex, multifaceted, multi-layered nature of doctor-patient communication, argues for realism in what can be taught and assessed in a classroom and suggests novel pedagogic approaches. The study also brings an African perspective to patient-centred communication, and in highlighting challenges relevant to the South African health care system, it supports contemporary calls for ‘decolonisation’ of health sciences curricula. The research contributes to ongoing efforts to

eradicate rheumatic heart disease by giving patients a ‘voice’, raising awareness and supporting preventative programs. Methodologically, the study contributes to Bezemer and Kress’ (2008) pursuit of articulating a semiotic methodological framework for multimodal texts.

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CHAPTER ONE

Introduction

1.1 Background

The story of this research started nearly 30 years ago, when a family member visited the local medical practitioner because of pain in her left calf. A thorough history and examination showed the young woman to have a deep vein thrombosis. Without providing any explanation other than naming her diagnosis, the doctor handed her a script for medication and elasticated stockings. Bewildered, unable to comprehend what this meant for her future, and recoiling at the idea of wearing an ugly elasticated stocking, the young woman groped for words. “But, Doctor... what now?” Holding up his pen in one hand and its plastic cap in the other, the doctor responded: “This is the vein. That is the clot”. Then he placed the cap back onto the pen with a flourish, closing the interview with “This is ‘what’”.

This doctor not only omitted information (regarding oral contraception, smoking and hereditary aspects) that potentially could affect this woman’s treatment adherence and health outcomes; he also made her feel small and ignorant. She should have been outraged. Instead she kept silent, embarrassed for presuming that a lay person could traverse the complex and foreign landscape of medical knowledge. This woman’s response mirrors that of many patients who feel disempowered through their interaction with the health care system. Patients’ commitment to their treatment plan are sometimes challenged by unpleasant drug side effects or lifeworld issues such as poverty or social stigma, and being given information that is too complex or too simplistic may contribute to a sense of disempowerment. If they miss clinic visits or tamper with their medication schedules because of these challenges, they risk gaining a type of institutional notoriety for being ‘defaulters’.

The story was related to me a few years later when I was working as a medical doctor. It inspired a life-long commitment to educating patients regarding their own health, both during my career as a practising doctor and more recently as an educator, curriculum designer and researcher at a South African medical school. In this study, I look at how medical students educate patients who suffer from a chronic, debilitating disease. I am

interested in how students transition between learning classroom-taught principles of communication, and operationalising those principles during interaction with patients. In highlighting the tension between theoretical and practical learning, I argue that contextual and historical factors such as language, culture and socio-political inequality have a significant impact on the quality and nature of student-patient communication. Therefore, my objectives in this study are to explore medical students' notions of 'patient-centred' health education and to show how different contexts affect students' communication behaviour.

1.1.1 Communication as a site of hegemonic struggle

Communication competence is considered a vital aspect of a doctor's training and it features prominently in the graduate outcomes of medical schools worldwide. The characteristics that are valued in medical discursive communications (that is, with peers or 'insiders') include delivering information concisely, without hesitancy or pauses that suggest lack of confidence and using technical, discourse-specific terminology (Apker & Eggly, 2004; Wyrley-Birch, 2010). Medical socialization scholars argue that this 'in situ' discourse helps to construct student identity as a clinician. However, others argue that the discursive practices of medical socialization may contribute to "a construction of medical ideology and professional identity that privileges technical medicine and marginalizes biopsychosocial approaches to care" (Apker & Eggly, 2004:412). This technical approach is seen to legitimise the traditional 'biomedical model', which sees health as 'the absence of disease' and positions those that have disease knowledge (scientists, doctors) as invested with power and legitimacy to make decisions about patients' lives (Macdonald, 1992; Hartman, 2014). One example of this model in medical education was explored in one of my previous studies. It showed how a widely-used Pharmacology textbook avoided discourses of responsibility, did not contain the term 'patients', and framed treatment only in terms of physiological systems and processes (Weiss & Archer, 2014).

In addition to learning how to talk like 'a doctor amongst other doctors', medical students must also learn to communicate with 'outsiders' such as the patients and their families. Communicating with one's patient is an integral component of establishing a diagnosis, developing a suitable management plan, instituting and monitoring treatment, obtaining consent for procedures, warning against side effects of medication, and so on. The

importance of the patient's beliefs and lifeworld context in achieving optimum and realistic states of health is widely-accepted (Jones, 2013). Communication with patients therefore requires a different approach, where patients are not only viewed in terms of their biological systems, but also in terms of being individuals with unique personal views and as being members of different social communities. This paradigm is referred to as the 'biopsychosocial approach' (Macdonald, 1992; Borrell-Carrió, Suchman & Epstein, 2004).

1.1.2 Communication in the medical curriculum: theoretical principles

Health care in western societies is based on the 'patient-centred model' (Mead & Bower, 2000; Stewart et al., 2003). The patient-centred model is not only firmly rooted in the biopsychosocial paradigm, but also challenges "the hierarchical notion of the professional being in charge and the patient being passive" (Stewart et al., 2003:6). 'Patient-centredness' is a 'guiding philosophy' (Epstein et al., 2005), a complex phenomenon best described as both a 'fuzzy concept' and a 'container concept':

With 'fuzzy concept' is meant a global concept, that everybody will recognize in its overall meaning, but yet can have a quite different connotation for different people when going into more detail. With 'fuzzy concept' is also meant that the core elements of the concept are clear to everyone, but on the periphery the picture gets blurred and a bit vague. Fuzzy concepts are recognized by people, but are difficult to operationalize in measurable elements... Another reason for the empirical stubbornness of the patient-centredness concept is that it is a container concept. It is not unidimensional. It contains several elements that maybe all point in the same direction, yet refer to different phenomena and different processes in the medical consultation, that can only be described by different theories (Bensing, 2000:21).

'Patient-centred communication' refers to the type of 'talk' that promotes patient-centredness. Broadly speaking, patient-centred communication is framed around two principles: that of recognising the patient as a "whole person who has individual preferences situated within social contexts" (Illingworth, 2010:118), and sharing control over the consultation and medical decisions. The patient-centred Calgary-Cambridge method (Kurtz et al., 2003) is widely used by health educators, training institutions and licensure bodies to guide the teaching and assessment of communication competence, and acts as an accompanying text to the CanMEDS Physician Competency Framework (Frank, 2005), one of the most influential graduate profile models in the twenty-first century.

However, the elusive nature of ‘patient-centredness’ poses a significant challenge to teachers and researchers alike. In reviewing the literature on patient-centred communication, Epstein et al., (2005) found unexplored assumptions, theoretical and conceptual ambiguity and lack of control over issues related to different social contexts. They warn that researchers’ and licencing authorities’ attempts at ‘measuring’ patient-centred communication outside of highly-controlled simulation environments are highly problematic. In suggesting that “rather than the number and type of a specific set of behaviours, responsiveness and informed flexibility should be considered fundamental qualities of PCC” (Epstein et al., 2005:1518), they call for qualitative research that accounts for how patient-centred communication is understood and played out in different contexts outside of the classroom.

1.1.3 Communication in the medical curriculum: practical considerations

At the medical school where this research is located, communication learning is guided by the patient-centred Calgary-Cambridge framework, and is practiced in the pre-clinical years mainly through role play with peers. From their third year, students are expected to practice their communication skills in clinical settings, by ‘clerking’ patients on admission (which includes ‘taking a history’) and presenting their patients at academic ward rounds. The history-taking interview forms the foundation for clinical acumen (Levin, 2005; Deumert, 2010); it sets in motion a series of decisions about what to examine or ignore, and what to explore further through tests and other means until a recommendation can be made regarding the patient’s presenting problem. Levin believes that “(s)kilful use of language endows the history with its clinical power and establishes the medical interview as the clinician’s most powerful tool” (2005:85). Knowing the patient’s history is not the endpoint – it is what doctors do with that information that counts, and how it informs their thinking and acting (Larivaara, Kiuttu & Taanila, 2001; Stewart et al., 2003).

By the time they start clerking patients, medical students have been assessed on their knowledge regarding the method (the skills and interpersonal behaviours) related to conducting a patient-centred interview. However, to what extent they draw on the patient-centred framework during patient interaction is less clear. Students learn and practice communication not only by being told how to, but also in socialization with their peers, their professors and other health carers. In reviewing the medical (MBChB) curriculum in terms of its alignment with the institution’s Faculty Strategic Plan, Hartman (2014) found that the

predominance of a biomedical culture among clinician-teachers and an inappropriately structured health system contributed to a narrow biomedical orientation in year six of the MBChB programme. This orientation was especially prevalent in competencies related to patient communication.

This study is interested in exploring how medical students operationalize the ‘taught’ principles of patient-centred communication once they start seeing patients on the clinical platform. It aims to explore students’ communication behaviour during an activity where students ‘take a history’ from a patient and then make decisions on what their patients should be ‘taught’ and how this information should be communicated in an empowering way. To reiterate, a consultation based on a patient-centred approach embraces two aspects that are not mutually exclusive: to understand the patient’s perspective and individual situation holistically, and to encourage shared decision-making as far as possible. Health education, when framed from this perspective, requires communication behaviours with both an explicit knowledge component and an autonomy focus (Prigge et al., 2015). It requires that students demystify what is going on ‘medically’ while at the same time valuing the patients’ viewpoint and sharing control over management decisions to the extent that patients desire it.

Contrary to perceptions amongst some specialist disciplines, patient-centred health education as defined in these terms is not easy to do or to teach to students. The work that is done in ‘translating’ medical information into lay terms is not merely an exercise in substituting scientific jargon with everyday words; rather, it is a process of understanding and deconstructing complex scientific processes, finding suitable metaphors and everyday representations related to the patient’s lifeworld, selecting the most apt patient-specific information while leaving out others, and putting this together in a way that is not only coherent but also likely to capture the patient’s interest and engagement. Whether using verbal language or health promotion artefacts such as posters, the student cannot provide the patient with the ‘full picture’; he or she must ‘read’ every unique person and situation to decide what, how and how much is necessary within time, social, language and other constraints. Furthermore, students as future doctors have a ‘vested interest’ in treatment adherence (Pilnick & Dingwall, 2011). What students say, and how they say it, encode their notions of what patient-centred health education ‘looks like’ in different contexts.

This study views a health education encounter as being a particularly suitable opportunity for exploring students' understanding of patient-centredness. Their decisions regarding content selection and forms of representation are informed by what they believe is medically desirable, their understanding of what constitutes health, learning and patient-centred communication, as well as their explicit and implicit assumptions about and attitudes towards other people. How they respond to patients is continuously shaped by aspects from both private and professional lifeworlds (including personal ideological and religious beliefs, practical considerations, logistical challenges and ingrained professional and social habits) and their experiences of being medical students in a specific medical curriculum. The texts produced during this process, such as health education artefacts, provide insight into students' perspectives.

Understanding what students view as 'patient-centred' is also important from an assessment point of view. Whereas there are many ways of assessing their clinical expertise, such as computer-based multiple choice questions or bedside orals, it is much more difficult to measure competence in the knowledges that underpin 'patient-centredness'. To paraphrase Epstein *et al.* (2005), patient-centredness is both a 'trait' or overall style of practice, and a 'state' or a specific type of behaviour during an interaction. It functions on the level of a 'moral philosophy' with certain 'core values' that are operationalized in the way we behave in each individual context. Most of the research on the impact of language, cultural and socio-economic challenges on doctor-patient communication has been conducted among minority groups in western countries. In South Africa, on the other hand, multiculturalism, multilingualism and socio-economic inequalities have a significant impact on the delivery of health care (Coovadia *et al.*, 2009), and there is little evidence on how these issues influence students' communicative practices. Assumptions about our medical graduates' communication competence are problematic because their interaction with patients on the clinical platform are contextually shaped. There is a need to understand, from students' perspective, what 'counts' as patient-centred communication in the 'real world'.

1.2 Research objectives

The broad aim of this study is to understand how students operationalise patient-centred communication in relation to language, cultural and socio-economic diversity. In using the term 'operationalise', I mean to foreground tension between students' theoretical knowledge

of patient-centredness, and their application of these principles in interaction with patients. This focus translates into two research objectives. The first objective is to explore students' notions of what 'counts' as patient-centred communication during their health education encounters with patients. The second objective is to explore the impact of contextual challenges during these encounters, by foregrounding certain commonly-occurring social themes and by accounting for individual patients' perspectives.

1.2.1 Exploring student-patient communication

The research is set within a Pharmacology health education activity. Fourth-year medical students attend a two-hour workshop introducing them to a 'meta-language of design' (Cope & Kalantzis, 2000), interview ward or clinic patients, and then design personalised health education artefacts for their patients. Students are not restricted to using traditional text types such as pamphlets, but may produce storybooks, games and other artefacts. Artefacts are 'multimodal' texts, in that the means for providing health information extend beyond spoken language to include "the whole range of representational and communicational modes or semiotic resources for making meaning that are employed in a culture" (Jewitt, 2009:1). Examples of these resources are image, writing and layout. Each student's artefact represents a personalised response to a patient and context. These artefacts do not provide generalised 'take-it-or-leave-it' health promotion advice regarding lifestyle; the patients are ill and on chronic medication that may have unpleasant side effects, and adherence to treatment regimens is a major concern. Students are also required to write a reflective report motivating and critiquing their content and design choices.

In trying to 'win over' their patients, students employ two strategies that are considered patient-centred: firstly, they seek to develop an 'outlook' that includes the patient's situation and perspective, and secondly, they seek to 'activate' the patient to 'take control' in some way (Michie, Miles & Weinman, 2003). Each artefact therefore represents a unique student 'outlook' and a targeted 'activation strategy'. These two aspects represent students' 'interest' (Kress, 2005) in this situation, firstly through the content that is selected as meaningful and how it is represented and organised, and secondly through the types of social and power relations that are constructed to win their patients' cooperation. Students' content selection and semiotic realisations both inform and are informed by the discourses of their

professional, private and public lifeworlds in ‘conversation’ with those of the patient (Fairclough, 1992; Cope & Kalantzis, 2009).

1.2.2 Understanding how context affects communication

One health education topic that was chosen for the Pharmacology curriculum activity is rheumatic heart disease (RHD). In South Africa, patients with RHD are more likely to come from poor, marginalised communities where English is not necessarily a commonly spoken language. This setting is ideal for research that aims to understand how different social contexts impact on students’ communication behaviour during health education encounters. Students’ communication behaviour is explored across three commonly-occurring social themes: that of language barriers, cultural values differences within and across the health care system, and socio-economic disparities (Coovadia et al., 2009; Deumert, 2010). The study draws on data that enable a more focused and nuanced understanding of these contextual challenges in student-patient communication.

To fully appreciate the impact of these social contexts, it is necessary to explore both students’ and patients’ perspectives. Students’ texts may be likened to a ‘double lens’: even though each artefact represents a personalised response to certain needs and challenges raised during the history-taking interview, the patients’ stories (as told by students) are being filtered through the students’ own ‘interests’ (Kress, 2005) and extent of engagement in the task. A student’s texts may contain contradictions, omissions and assumptions which are ‘invisible’ to readers other than the student’s own patient. It is possible that a student did not probe enough or ask relevant questions, did not understand the patient’s needs or perhaps misread clues because the patient chose not to reveal relevant facts. A student’s artefact may seem perfectly ‘patient-centred’ to a third party who was not present during the encounter, and the student’s reflective notes may even support this interpretation, but the artefact might not be that ‘patient-centred’ from the patient’s point of view, either in terms of what knowledge was provided, or in terms of the social order that underpins the learning moment. Mismatches between the perceptions of provider and patient are not uncommon; evidence suggests that even where educational programs exist, patients may still have unmet needs for information (Victor, Ross & Axford, 2004).

1.3 Research questions

Two research questions are pursued across different social contexts:

1. In designing multimodal health education artefacts for rheumatic heart disease patients, what representations of knowledge do fourth year medical students construct as being patient-centred, empowering advice?
2. In designing multimodal health education artefacts for rheumatic heart disease patients, how do fourth year medical students construct social relations that create an empowering, patient-centred learning environment?

While both questions prioritise a distinct aspect of the communication encounter, they are interlinked. The actions, assumptions or motivations that serve to answer one question contributes to both shaping and responding to aspects foregrounded in another question. The questions provide a useful framework with which to explore students' motivated designs as instances of 'informed flexibility' (Epstein et al., 2005). Students' communication behaviour is explored against the background of language differences between doctor and patient, systemic hegemonic issues arising from cultural and micro-cultural value differences, and life-world challenges that exist outside the doctor-patient encounter but that impact on the patient's ability to adhere to treatment.

1.4 Delineations and limitations

Patient-centred communication in health sciences education is a broad theme. This study aims to explore the nature and notions of patient-centred communication that are embedded in medical students' purpose-designed health education texts. The study also positions patient-centred communication within the context of a PHC-led medical curriculum. The details of the research context are important in delineating the study and understanding the limitations of the findings.

This study is specifically located in the fourth year of medical study at a South African Higher Education institution to explore students' communication behaviour in a formative environment. Findings may not necessarily be the same with sixth year students, graduated interns or practicing doctors, as on-going clinical experience inevitably shapes

communication practices and notions of identity. At this institution, classroom learning on topics like patient-centred communication and health promotion gradually decreases in third year while patient contact increases. By fourth year, students are immersed in the wards and clinics in a ‘clinical clerkship’, and most learning is done at the bedside. However, student feedback at the end of fourth year often alludes to their disillusion with both patients and the medical profession. A local study found evidence of fourth year medical students’ inner conflict in witnessing ward practices that contradict the high ideals and standards that they were taught in the classroom (Draper et al., 2012a). Students are acculturated into the medical discourse through bedside teaching and ward work. Immersed in this environment, they learn to speak and act ‘like doctors amongst other doctors’ while encountering first-hand the challenges of having a heavy patient load, limited consultation time and patients who they may experience as passive or with whom they are unable to communicate.

The exploratory nature of this study is central to its findings. Epstein argues that “communication research should move beyond the deficiency model—that is, proving that physicians don’t do enough of this or that” (Epstein, 2006:277). This research does not attempt to measure or evaluate students’ work, but to make visible what students construct as ‘patient-centred communication’ and how they deal with what might be conflicting interests. Similarly, in exploring patients’ take on the artefacts and related issues, the aim is to foreground a specific social context, rather than to make evaluative judgements on whether the texts are suitable for health education outside of that context. Instances of health education are explored from multiple perspectives to understand students’ communicative behaviours in different situations. The point of departure is always the students: their interests, how they coped with challenges and what meta-knowledge, if any, emerged from that process. The study is also not meant to be exhaustive or comprehensive, and fewer examples are provided to enable a deeper exploration.

The study is located within an activity where students interview a patient, produce a health promotion artefact based on the patient’s needs and reflect on the interview and design process. This activity constitutes a type of ‘communication encounter’, in that students are required to establish a relationship, elicit, synthesise and convey information towards reaching a common understanding of the problem, and find ways of involving patients in their own care (HPCSA, 2014). Preparing an artefact for a patient has both similarities and differences with direct, face-to-face health education encounters. Both contexts impose

limits on the amount of content that can be included, either through the physical space available in an artefact, or time spent in a face-to-face encounter. The artefact activity differs from face-to-face communication encounters in that a student has more time to reflect and to prepare a thoughtful response. Furthermore, while a face-to-face encounter relies mostly on speech and gesture, artefacts may draw on multiple socially and culturally-shaped resources for meaning-making, such as photographs, diagrams, colour and writing. While some of this study's findings on students' communicative practices may apply to a broader context, they are specifically relevant to health education communication.

1.5 Rationale and significance

The study is significant in four main areas. Firstly, it has practical and ideological implications for the medical curriculum. Secondly, the research contributes to the corpus of literature on patient-centred communication, and on the implementation of the patient-centred model of communication in the South African context. Thirdly, the study contributes to a Pan African program towards eradicating RHD, by foregrounding the needs and challenges of RHD patients and demonstrating the value of multimodal pedagogy in designing health education artefacts. Fourthly, the study contributes to the literature on multimodal social semiotics and its application in Health Sciences.

1.5.1 Contributing to the medical curriculum

Two recent developments in the Higher Education sector have accelerated the need for critical reflection on the alignment between curriculum activities, graduate outcomes and the health needs of society. Firstly, a South African version of the CanMEDS Physician Competency Framework (HPCSA, 2014) was released by the Health Professions Council of South Africa (HPCSA). This document specifically foregrounds graduate competencies related to communication and health advocacy and has implications for medical program accreditation in the future. Secondly, student activist groups have responded to the slow pace of political transformation and socio-economic redress in post-apartheid South Africa by advocating not only for fee-free tertiary education, but also for 'decolonisation' of Higher Education institutions and curricula.

On a theoretical level, the patient-centred model is aligned with the government's strategy of replacing traditional medical curricula with approaches that graduate 'patient-centred'

doctors equipped for South Africa's health needs (Hartman, 2014). However, evidence is needed on how patient-centred communication is 'practiced' in clinical encounters. Opportunities for 'measuring' instances of patient-centred communication are limited (such as surveying self-reported perspectives using questionnaires, focus groups and interviews – see Epstein et al., 2005) and may not adequately capture the complexity introduced by contextual factors. Studying one curriculum activity in depth may provide insight as to whether the medical curriculum provides enough input and support in preparing students for local conditions. This research is original in that findings are not based on self-reporting, but rather on a researcher's close reading of students' texts and patients' views in response to a 'routine' curriculum activity.

Another concern raised by Epstein *et al.* is that "some 'consumers' of PCC research may not want a complex vision" (2005:1524). This research aims to make the complex, multi-faceted nature of doctor-patient interaction explicit. While the study is specific to a student cohort and location, the findings have wider significance, if only in cautioning curriculum designers and educators against overly-simplistic notions of patient-centred communication and how it can be 'measured'. The study presents a more nuanced perspective on students' communication behaviour that is especially relevant to contexts of diversity, both in South Africa and elsewhere. It also highlights how a multimodal approach in a medical curriculum activity may be used for exploring cultural and socio-economic diversity.

1.5.2 Contributing to research on patient-centred communication

While a large corpus of research exists on patient-centred communication, almost all published works originate from North America or Europe and have a distinctly Eurocentric or Western slant, for example, regarding assumptions about shared decision-making. Little is known on whether or to what extent the 'classic' and widely-taught definitions of patient-centred communication are applicable in the African context. This research study aims to make visible what passes for patient-centred health education among students and patients in the South African context, which is characterised by language and cultural diversity. At the same time, the research addresses a call for qualitative and exploratory studies that foreground contextual factors and their impact on patient-centred communication behaviour (Epstein et al., 2005).

The study also contributes to understanding the intersection between patient-centred communication, the Primary Health Care (PHC) philosophy which guides government policy, and the day-to-day realities of the health care system. Hartman's case study (2014) clearly demonstrates the impact of hegemonic struggles on medical training. This struggle goes to the heart of what it means to be a doctor in the twenty-first century, more specifically, a doctor that is appropriately equipped to practice in South Africa. The adoption of the philosophy of PHC by the post-apartheid government is aimed at providing 'health for all' (Macdonald, 1992). Rather than prioritising the technical expertise and diagnostic competencies that in the past had made South African graduates sought-after internationally, government policies require that medical schools graduate more 'generalist' doctors with competencies that extend to health promotion and disease prevention. Therefore, a PHC-led curriculum places a higher value on communication as a graduate outcome. This research draws on a view of identity as "self in situation... constructed, maintained, and challenged by self's and interlocutor's communicative practices" (Tracy & Naughton, 1994:281), and provides insight into how students construct their own identities in 'conversation' with patients and the health care system in which they work.

1.5.3 Contributing to the eradication of RHD through health promotion

RHD is a life-threatening condition that occurs almost exclusively in so-called 'third world' or developing countries. It accounts for a major proportion of all cardiovascular disease in children and young adults in Africa, despite it being completely preventable. This study contributes to the 'A.S.A.P.' program, an initiative coordinated by the Pan African Society of Cardiology in collaboration with the World Heart Federation and the World Health Organization. The program is aimed at creating awareness among health care providers, developing surveillance networks, encouraging advocacy to influence policies and establishing prevention programmes (Mayosi, 2006). This research aims to identify examples of effective and empowering health education artefacts and to make the needs and challenges of RHD patients explicit. Furthermore, by recognizing the life-worlds and experiences of RHD patients as valuable resources, the study aims to validate the rich contribution that traditionally disadvantaged communities offer to academic teaching and research.

1.5.4 Contributing to multimodal social semiotic research

The study contributes to the field of multimodal social semiotics in that it extends the application of social semiotic theory to medicine and health sciences education. Social semiotic researchers working with health topics commonly focus on the design aspects of health texts while backgrounding the medical content, for example the analysis of stereotypes in British sexual health campaigns (Jewitt & Oyama, 2001). Research where a social semiotic approach intersects directly with medical education is uncommon, and include verbal and non-verbal communication during laparoscopic surgery (Bezemer et al., 2012; Korikiakangas, Weldon & Bezemer, 2015). Few researchers study the medical content as well as the design (Weiss & Archer, 2014). The significance of this study lies in interrogating both representational designs and the ‘correctness’ and ‘aptness’ of selected clinical content. This approach demonstrates the value of cross-disciplinary research; it provides an inter-professional reading of textual data that is novel and relevant to clinicians and to social scientists. The research also provides a ‘toolkit’ of semiotic resources that may be useful to other researchers in analysing multimodal health education texts.

1.6 Overview of chapters

The aim of the study is to explore what counts as patient-centred communication when medical students provide treatment advice to RHD patients from different social contexts. This first chapter briefly explains the global and local background to the study and motivates why it is an important topic to explore.

Chapter two outlines the theoretical approach, where three different fields (patient-centred communication, health education and multimodal social semiotics) are brought together to form an overarching framework. The first part of the chapter locates this study in a larger corpus of research on patient-centred communication. The second part explores the theoretical basis for treating students’ multimodal, purposefully designed health education artefacts as instantiations of patient-centred communication. The third part of the chapter outlines the semiotic lens used in analysing these health education artefacts. Drawing on a social semiotic interpretation of Bernstein’s (2000) recontextualisation principle, an overview of multimodal social semiotics is provided and core concepts related to this study are discussed in more detail. This chapter provides the theoretical grounding for the analytical framework in chapter four.

Chapter three describes the educational and socio-political background to this study. The traditional biomedical and PHC-aligned biopsychosocial models are described as different ideological orientations that impact on medical education. The teaching and assessment of communication within the PHC-led medical curriculum is outlined. This discussion provides the backdrop for a more detailed look at the curriculum activity from where the data emanated. Lastly, since students' selection of content in each case is important, an overview of the cause, management, outcomes and prevention of rheumatic heart disease is provided.

Chapter four presents the organising framework for the research and the approach to data collection and analysis. The research design is explained against the background of my epistemological orientations and in terms of the study's aims and challenges. Students' multimodal artefacts are treated as primary data and a social semiotic framework is offered to analyse their texts. Students' reflections provide insight into how to interpret their semiotic choices, and the patient interview data assist in understanding the patient context.

Chapter five explores the strategies that students employed in designing artefacts for a patient with whom they could not converse in English during the interview. The chapter starts by putting South Africa's multilingualism in the context of health care, before introducing Ms Plaka, the patient for whom the artefacts were designed. She was interviewed by two students who respectively produced an A5 book cover and a booklet. The chapter argues that where significant language barriers exist, students reverted to a more biomedical approach and seemed to hold a deficit view regarding language diversity. Chapter five, six and seven are all structured similarly, in that semiotic descriptions of artefacts are interweaved with comments from students' reflective notes and from patients.

Chapter six explores students' responses to a patient whose hegemonic struggles against the health care system originates from cultural, micro-cultural and social value differences. Three artefacts were designed for Ms Tsetando: a pharmaceutical newsletter, an origami story box and a mini-magazine. The chapter explores how students, when confronted with non-adherent behaviour from an educated and eloquent patient, draw on other 'voices' perceived to be more legitimate in this situation. It is set against the backdrop of medical hegemony on a systemic level, and recognises that patient-centredness is meant to be an individual as well as an institutional approach.

Chapter seven foregrounds two students' interaction with a teenager named Bonga, whose challenges to treatment adherence arise from socio-economic disparities within a broader South African context. The students designed a calendar and a traditional pamphlet. Although issues of language difficulty and institutional hegemony are raised, the chapter specifically foregrounds social discordance in communication. It argues that medical students may be ill-equipped to deal with situations where health education advice is almost useless in the face of overwhelming poverty and societal inequality.

Chapter eight concludes by summarising the principles that inform the research design and execution, and discussing what the research findings in the various contexts mean on a 'meta' level. The chapter identifies overarching themes related to student-patient communication across different contexts and highlights areas of congruence and tension. The significance of research findings is discussed in the light of increasing calls for 'decolonised' higher education, and suggestions are offered on the way forward.

CHAPTER TWO

Theoretical framework

2.1 Introduction

The phenomenon of patient-centred communication is highly complex and poorly understood by many who use the concept, including physicians and those that train future doctors. Epstein et al., call for a greater understanding of physicians' communication behaviour alongside "a more nuanced appreciation for the patients' values and experiences" (2005:1524). Gaining a 'nuanced appreciation' requires deep, qualitative exploration and going beyond the 'self-reporting' and 'measuring' that characterises much of the literature on patient-centred communication. Furthermore, what may be valued in one encounter as being patient-centred may not be ideal in another. There is a need for research that accounts for how doctors' respond to communication challenges across different contexts (Epstein et al., 2005).

This study responds to both those calls. It aims to present a rich, qualitative reading of how the principles of patient-centred communication are operationalised by medical students in their encounters with patients across different contexts. This research takes a cross-disciplinary and entirely novel approach, by bringing the patient-centred model of communication (Epstein et al., 2005; Mead & Bower, 2000) into conversation with multimodal social semiotic theory (Kress & Van Leeuwen, 2006; Bezemer & Kress, 2008; Jewitt, 2009).

Social semiotic theory views the 'motivated interest' of the sign-maker as fundamental to the process of meaning-making (Kress, 2005) and draws textual analysis to describe 'what is going on' during communication. Therefore, a social semiotic lens foregrounds the medical students as 'responding' to their patient's values and experiences in different contexts through their designs. Analysis of purpose-designed multimodal artefacts and supporting data reflects what students construct as being 'patient-centred'.

2.2 Overview of chapter

This chapter explains the theoretical framework for the research. A cross-disciplinary approach is taken, which requires theoretical grounding related to patient-centred communication (as phenomenon being studied) and to multimodal social semiotics (as analytic lens). The origins, elements, definitions and relevance of the patient-centred model to communication and education are explained and related to other models such as ‘cultural competence’ approaches. Health education as an instance of patient-centred communication is explained. Lastly, an overview of the multimodal social semiotic approach is provided, together with a discussion of the key concepts that are relevant to this study.

Since this research relates to the education of both medical students and patients, specific attention is given to the work of Jeff Bezemer and Gunther Kress (2008) related to the analysis of pedagogic texts. Their research represents a social semiotic interpretation of Bernstein’s theory on pedagogic recontextualisation (2000). A brief overview of Bernstein’s pedagogic device is also provided, to the extent that it informs both this research and that of Bezemer and Kress (2008).

The chapter concludes by drawing parallels between the discourses of patient-centred health education and that of Bernstein’s ‘pedagogic device’ (2000). The patient-centred philosophy’s twin goals of ‘shared knowledge’ and ‘shared responsibility’ (Illingworth, 2010) can be compared at a meta-level to Bernstein’s instructional discourse (the epistemic/knowledge dimension) and regulative discourse (the underlying moral order and relations). Therefore, taking a multimodal social semiotic approach to students’ epistemic and relational constructs provides insight into how they operationalise patient-centred health education. By selecting cases that foreground different types of challenges (such as language barriers, cultural value differences and broader societal disparities) and by interrogating the patients’ own perspectives in each case, the contextual nature of communication is made explicit.

2.3 Patient-centred communication

The concept of patient-centredness originated during the late twentieth century at the periphery of medical practice and was at first seen by many to be a ‘soft science’ (for a historical perspective on the evolution of the patient-centred model see Stewart et al., 2003).

In 2001, the United States' Institute of Medicine, which provides advice on health policy, released a landmark report called '*Crossing the 'Quality Chasm': a New Health System for the 21st Century*' (Epstein & Street, 2011) in which patient-centred care was 'enshrined' as one of six elements of high-quality care. The concept has been applied by researchers and users to different clinical spheres, giving rise to terms such as patient-centred care (Stewart, 2001), patient-centred communication (Epstein et al., 2005) and others. Despite widespread popularity, the concept of patient-centredness is not always applied consistently.

2.3.1 Definitions related to a patient-centred approach

Terms such as patient-centredness and patient-centred care are often used interchangeably and contribute to the confusion among users such as educators and researchers. This study draws on selected definitions from literature to maintain conceptual clarity.

- Patient-centredness is the broadest and most vague of the related concepts. It refers to a moral philosophy that operates at different levels and aims to enhance the doctor-patient relationship. It is broadly concerned with considering the patients' needs, challenges and beliefs, and providing opportunities to involve patients in their care (Epstein et al., 2005).
- Patient-centred care refers to actions in service of patient-centredness, which may include interpersonal behaviours, technical interventions and health system innovations (Epstein et al., 2005).
- Patient-centred outcomes refer to aspects of health or care that primarily patients care about, such as patient satisfaction, quality of life and functional status (Saha, Beach & Cooper, 2008).
- Patient-centred interviews refer to face-to-face patient-practitioner interactions in which there is a focus on understanding the patient's perspective and the problem holistically, and sharing decision-making (Illingworth, 2010).
- Patient-centred communication refers to doctor-patient-family interactions that promote patient-centredness (Epstein et al., 2005). This definition goes beyond the face-to-face interview to include other instances of communication, such as telephonic conversations and health education materials (Saha, Beach & Cooper, 2008).

2.3.2 Elements of patient-centred communication

A patient-centred approach is often defined in terms of “what it is not—namely, disease-centred, technology-centred, physician-centred, or hospital-centred” (Epstein et al., 2010:1491). This study focuses on patient-centred communication in the context of a patient education encounter. In other words, it explores the extent to which students draw on a patient-centred philosophy during a personalised patient education activity, which includes both a spoken component (a face-to-face interview with their patient) and a multimodal design component (creating a personalised health education artefact). Epstein *et al.* identify four characteristics of patient-centred behaviour during communication:

- a. Understanding the patient within his or her unique (bio)psychosocial context.
- b. Eliciting and understanding the patient’s perspective—concerns, ideas, expectations, needs, feelings and functioning.
- c. Reaching a shared understanding of the problem and its treatment with the patient that is concordant with the patient’s values.
- d. Helping patients to share power and responsibility by involving them in choices to the degree that they wish (2005:1517).

Students’ multimodal artefacts may be considered a patient-centred response “to the extent that they meet patients’ needs, are written in a way that patients can understand, and enhance patients’ understanding and ability to participate in medical care” (Saha, Beach & Cooper, 2008:1277). The essential elements of patient-centred communication are interlinked and mostly overlap in seminal research on this topic (Mead & Bower, 2000; Stewart et al., 2003; Epstein et al., 2005). In the following section, the four elements are discussed as separate elements.

2.3.2.1 Taking a biopsychosocial approach to illness

The ‘biopsychosocial approach’ originated from the work of a psychiatrist, George Engel (1980), in reaction to the prevailing positivism of the ‘biomedical’ paradigm. While many others may have modelled similar beliefs, he advanced his ideas to be not only ideologically moral but also scholarly and scientifically sound. At that time medical thinking was dualist (separating the mind and body), reductionist (ignoring or devaluing that which could not be ‘scientifically’ verified or explained) and valued the physician as a scientist and ‘detached observer’ (Borrell-Carrió, Suchman & Epstein, 2004). Engel, on the other hand, took a holistic and integrative view of disease and illness, believing that

[n]othing exists in isolation. Whether a cell or a person, every system is influenced by the configuration of the systems of which each is a part, that is, by its environment (Engel, 1980:537).

His ‘biopsychosocial model’ argued for a recognition of the relationship between the mental/psychological and physical aspects of health. For example, the shortness of breath that patients with rheumatic valve disease experience may be as much a function of their impaired cardiovascular function as of their anxiety of not coping with a day of work, and the fear of losing their income. His model also recognised the complexity of a mechanical or ‘systems’ view of illness and emphasised the social determinants of health, for example, patients may delay seeking help because poor communities have limited access to health care, or may ascribe their symptoms to socio-cultural beliefs such as witchcraft. Engel rejected that “a stance of pure objectivity” (Borrell-Carrió, Suchman & Epstein, 2004:577) was even possible, and called for the ‘human dimensions’ of both physician and patient to be studied. In short, the biopsychosocial perspective elevated the ‘subjective’ needs and challenges of patients as a valuable type of knowledge through

an appreciation that disease and illness do not manifest themselves only in terms of pathophysiology. Depending on which view one adopts, disease and illness may simultaneously affect different levels of functioning, from cellular to organ system to organism to person to family to society (Frankel, Quill & McDaniel, 2003:23).

Many believe that “George Engel’s most enduring contribution was to broaden the scope of the clinician’s gaze” (Borrell-Carrió, Suchman & Epstein, 2004:581) to recognise the complexity of illness and disease. A biopsychosocial perspective manifests in an interview or other communication encounter when physicians ask questions and invite responses that reflect this holistic ‘gaze’.

2.3.2.2 Eliciting the patient’s perspective

Described as an “ethically neutral scientific paradigm” (Cilliers, 2005:32), the biopsychosocial approach directs the clinician’s focus on a broader understanding of the illness and ‘life setting’ within which it occurs. However, one should also understand the patient’s perspective of what is going on, and what personal meaning the illness has for that patient (Mead & Bower, 2000). This element of patient-centred communication focuses on the patient as a person, on their feelings, fears and needs. Stewart *et al*’s clinical methods ‘toolbox’ (2003) provides ‘memory joggers’ such as ‘FIFE’ to trigger questions on how

patients feel about their problems, patients' ideas about what could be wrong, the effect of the illness on their functionality and patients' expectations of their doctor (Illingworth, 2010).

In health education encounters, this element of patient-centred communication focuses specifically on identifying where the patient's misconceptions are regarding their illness, what the barriers are to adhering to treatment regimens and what information would be meaningful to them personally. Eliciting and acquiring the patient's perspective may also be conceptualised as developing a certain type of gaze, where the clinician "tries to enter the patient's world, to see the illness through the patient's eyes." (McWhinney, 1989:34).

2.3.2.3 Shared understanding and therapeutic alliance

A third aspect of patient-centred communication is the 'co-construction' of knowledge. When the patient's subjective experience (patient perspective) is brought into conversation with the physician's medical expertise (biopsychosocial perspective), a shared understanding may be reached on what the problem is, and this forms the basis of an agreement about what needs to be done about it. This category draws on what Engel (1980) termed a 'dialogic' model, which "suggests that the reality of each person is not just interpreted by the physician, but actually created and recreated through dialogue" (Borrell-Carrió, Suchman & Epstein, 2004:578). The therapeutic alliance between doctor and patient is based on trust and mutual respect of each other's knowledge and experience. When parties do not reach agreement on the problem or priorities, medical outcomes may be affected, resulting in, for example, a faulty diagnosis or non-adherence to prescribed care. Affective aspects (positive or negative experiences of the encounter) may influence outcomes, for example, when patients experience a 'placebo' effect because of positive emotions even when no 'active' treatment was given (Mead & Bower, 2000). This element of patient-centred communication foregrounds both the content of 'shared understanding' as well as the relational aspects of forming an 'alliance', and both aspects are critical to health education communication.

2.3.2.4 Shared responsibility and decision-making

The category that is probably the most problematic is that of shared decision-making (Lee & Lin, 2010; Pilnick & Dingwall, 2011). Drawing on Mishler (1984), Mead and Bower refer to shared decision-making as addressing the “imbalance of the discourse of the consultation” (2000:1089). Egalitarian rather than paternalistic relationships between doctor and patient have become more desirable in the new medical paradigm, and this includes not only valuing patients’ experiences and perceptions but also respecting patients’ autonomy in having the final say.

Patients’ autonomy preferences vary considerably, for example, more paternalistic interactional styles may be preferred in some cultures (Claramita et al., 2013). Of course, the immediate context also plays a role; patients may defer decision-making in situations that are either straightforward and short-term or life-threatening. Their autonomy preferences may change if their concerns and needs are not being met, such as when complicated or long-term illness develops or when cultural or other discordance is also present. Shared decision-making is considered a core aspect of ‘patient empowerment’, which is described as “the set of self-determined behaviours based on patients' individual needs for developing autonomy and competence with their disease” (Prigge et al., 2015:375).

Some criticize what appears to be a ‘default’ position, that asymmetrical relations are always problematic and that patients who ‘adhere blindly’ are necessarily disempowered. In a scathing critique on what they consider the patient-centredness movement’s preoccupation with paternalism, Pilnick and Dingwall argue that

asymmetry lies at the heart of the medical enterprise: it is, in short, founded in what doctors are there for. If this is correctly understood, then we can seek to disentangle what might be considered to be functional and dysfunctional asymmetry, and to proceed with rather better grounded reform programmes that acknowledge the inescapability of medical authority and patient deference. It may be possible to train doctors to exercise their dominance in more civil ways (2011:1375).

Others hold more nuanced views of what is meant by ‘shared responsibility’, for example, some argue that the physician should ‘avoid controlling’ the interview (Lee & Lin, 2010), or simply be flexible in thinking about patients’ autonomy preferences (Epstein et al., 2005; Lee & Lin, 2010). Some practitioners believe that patients need not necessarily be involved

in decision-making, but their active engagement should be prioritised (Michie, Miles & Weinman, 2003; Robinson et al., 2008).

Regardless of where physicians stand in relation to this debate, all are concerned with the issue of treatment adherence. The terms ‘compliance’ and ‘adherence’ are often used interchangeably in referring to a patient’s efforts in following prescribed treatment. However, the term compliance is increasingly seen as having negative connotations (Vermeire et al., 2001). Robinson et al., (2008) argue that the term ‘compliance’ suggests conformity to instructions and connotations of control, whereas ‘adherence’ signals the patient’s autonomy in deciding whether to follow the doctor’s recommendations. In other words, “(n)onadherence occurs only if the patient does not follow treatment recommendations that are mutually agreed upon” (Robinson et al., 2008:603). Their argument serves to highlight the complexity and interconnected nature of the different elements of patient-centred communication: without reaching a shared understanding of the problem and solution (what Bensing refers to as the ‘content dimension’ of patient-centred care), it is impossible to consider shared decision-making, or the ‘control dimension’ (Bensing, 2000). The consensus seems to be that patients should be involved to the degree that they desire (Stewart et al., 2003; Epstein et al., 2005; Illingworth, 2010).

2.3.3 Global dissemination of the patient-centred communication model

Like the confluence in terminology, it is not always obvious how a patient-centred approach differs from other approaches. Stewart et al., argue that

[t]he most important distinction between the patient-centred care approach and other frameworks is that it is both a model and a clinical method. It is not a compilation of interviewing skills... it includes both the theoretical framework or grounding, and strategies for implementation in practice and teaching, as well as a body of accompanying research (2003:9).

This is arguably one of the reasons why the patient-centred model spread so rapidly around the globe; methods and tools that prove useful are shared among educators and researchers. A good example is that of the CanMEDS Physician Competency Framework (Frank, 2005), which has been adopted by medical schools in Australia, Europe, the United States and more recently South Africa. It presents graduates as “applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centred care” (Frank, 2005:9). The

Calgary-Cambridge method (Kurtz et al., 2003) is another example, adopted and adapted by CanMEDS “as a way of organizing effective doctor-patient encounters for teaching, learning and assessment” (Frank, 2005:14). A significant body of research was conducted over the last few decades to test and verify the usefulness of various strategies and methods related to patient-centred communication. The Kalamazoo II Report, for example, represents “the state of the art in teaching and evaluating competence in communication and interpersonal skills” (Duffy et al., 2004:496). However, Epstein and Street warn that confusion or ambiguity about what patient-centred communication means “can produce efforts that are superficial and unconvincing” (2011:101).

In 2014, the Health Professions Council of South Africa (HPCSA) published an adapted version of the CanMEDS to align “the training of health professionals in South Africa (SA) with the health needs of the population and with international educational norms and standards” (Van Heerden, 2013:21). Like the original CanMEDS (Frank, 2005), medical graduate competencies are realised in terms of seven ‘roles’. Each role is described in terms of ‘key’ and ‘enabling’ competencies. This study explores patient-centred communication in the context of a health education encounter, and only the competencies related to the ‘Communicator’ and Health Advocate’ are discussed here.

The HPCSA sees competence in the role of ‘Communicator’ as ‘dynamic facilitation’ of the doctor-patient relationship before, during and after interventions. Key competencies include developing relationships with peers, patients, families and communities across cultural boundaries, eliciting and synthesizing information, conveying information accurately and reaching common understanding of problems and a ‘shared plan of action’ (HPCSA, 2014). Enabling competencies include demonstrating a patient-centred and community-centred approach, demonstrating “flexibility in the application of communication skills” (2014:5), respecting diversity in decision-making, and engaging stakeholders in shared decision-making. The role of the ‘Health Advocate’ is linked to identifying and responding to the health needs of individuals and communities.

At the medical school where this study is located, communication is taught using the patient-centred Calgary-Cambridge framework. This method sees the teaching of communication as “a vertical, continuous strand to allow review and development of previous learning, as well as the addition of more complex skills as learners advance through undergraduate training”

(Cleland, Foster & Moffat, 2009:247). Students move from classroom-based learning on ‘communication skills’ and ‘interpersonal skills’, where competence may be assessed in standardised ways (Duffy et al., 2004) to more complex situations on the clinical platform, involving real and ‘unscripted’ patient encounters. It is at the point of dissemination that the patient-centred philosophy faces the greatest risk, as students find themselves immersed in a more biomedically-orientated culture (Hartman, 2014) and subjected to the logistical challenges of the health care system.

2.3.4 Patient-centred communication and cultural ‘competency’

Recognising the importance of culture is core to delivering ‘patient-centred’ health care and negating the effects of racial, ethnic and social prejudice and discrimination. Obvious barriers in doctor-patient encounters relate to not having a shared language in which to communicate (Deumert, 2010), having different explanations for symptoms (Smith, 2006) and having cultural preferences related to doctor-patient relations (Verma et al., 2016). More subtle barriers linked to culture may be present with significant socio-economic disparity (Willems et al., 2005; Verlinde et al., 2012). For this reason, some argue that “the essence of cultural competence is a “patient-centred approach”” (Saha, Beach & Cooper, 2008:1280) as the main focus is to see ‘through the patient’s eyes’ (McWhinney, 1989). Conversely, others have described cultural competence as another element of patient-centred care (Betancourt, Green & Carrillo, 2002).

The concept of ‘cultural competence’ originally grew out of a recognition that cultural and linguistic communication barriers interfere with health care (Saha, Beach & Cooper, 2008). Over the last two decades, it has moved beyond a concern with the healthcare of immigrants (foregrounding issues of limited English and non-exposure to western cultural norms) to formulating a culture-responsive approach to the racial and ethnic disparities that affect minority groups in many countries. The term ‘culture’ is taken as

integrated patterns of human behaviour that include the language, thoughts, communications, actions, customs, beliefs, values, and institutions of racial, ethnic, religious, or social groups (Office of Minority Health, 2000 cited in Paez et al., 2008:1205).

Broadly speaking, curricular programs around cultural competency generally seem to include “a combination of knowledge about certain cultural groups as well as attitudes

towards and skills for dealing with cultural diversity” (Seeleman, Suurmond & Stronks, 2009:230). However, the term ‘competence’ is unfortunate as it tends to elicit negative feelings associated with assumptions of ‘having an end-point’ and of ‘being adequate’ or ‘well qualified’ in communicating across cultural boundaries (Kumagai & Lypson, 2009). Since language diversity within societies is globally on the increase (Nazar et al., 2015), it is likely that health care providers will encounter cross-cultural verbal and non-verbal meaning-making beyond that learnt in medical school. Furthermore, cultural perspectives are nuanced and embedded in discursual practices and social histories; having to certify the competence of ‘cultural outsiders’ increases the risk of reifying stereotypical constructions and the ‘otherness’ of certain groups” (Powell Sears, 2012; Nazar et al., 2015).

Despite these problems, cultural competence as a conceptual model is widely used in health sciences education in multiple permutations and variations. In response to critique, the contemporary view of cultural competence is to aim for a balance between knowledge and ‘ways of being’. These models focus on students acquiring some background knowledge of the relevant cultural groups within a particular environment, and developing ‘attitudes and skills’ that are universally relevant rather than specific to any particular culture (paraphrasing Saha, Beach & Cooper, 2008:1278). They also encourage a more balanced perspective of power, having recognised that “both patients and providers brought cultural perspectives to the encounter” (Saha, Beach & Cooper, 2008:1279) and that power pertains to their own cultural influences as well as that of the western biomedical model. Greater emphasis is placed on the “ability to adapt to new situations flexibly and creatively” (Seeleman, Suurmond & Stronks, 2009:235). One example of such a model advocates the inclusion of an intersectionality framework within the cultural competence curriculum, which emphasises the multiple ‘social statuses’ that “intersect and combine to serve as the basis for discrimination and inferior life chances” (Powell Sears, 2012:546).

Others reject ‘competence’ in favour of ‘cultural humility’ (Tervalon & Murray-García, 1998). They argue that cultural knowledge is important but to avoid a false sense of security, the provider must be primarily ‘humble’ and ‘flexible’. The cultural humility model therefore focuses on the development of a life-long process of self-evaluation, self-critique, redress of power imbalances, and development of partnerships with communities.

An approach to cultural diversity that may resonate with the social and political discourses in developing countries such as South Africa is that of ‘critical consciousness’. This idea originates from “a distressingly common failure to connect the idea of diversity with the underlying core concept of social justice in health care” (Kumagai & Lypson, 2009:782). Instead, they suggest that cultural competency

is something beyond the somewhat rigid categories of knowledge, skills, and attitudes: the continuous critical refinement and fostering of a type of thinking and knowing—a critical consciousness— of self, others, and the world (Kumagai & Lypson, 2009:783).

This view places the ‘thinking subject’ in relation to ‘others in the world’, and has a specific focus on social justice, collaborative problem-solving and engagement (Kumagai & Lypson, 2009).

The main difference between patient-centred communication and the more ‘conventional’ forms of cultural competence lies at the level of health care systems. The patient-centred model aims at individualising and improving the quality of health care for all patients, for example, assuring continuity of care through electronic patient records. A cultural competence approach foregrounds the needs of disadvantaged populations, for example, by appointing doctors who share the same languages and cultures as their patients (Saha, Beach & Cooper, 2008). In the South African health care system, cultural competence is embedded in the Primary Health Care principles related to a biopsychosocial ‘whole-person approach’ and community participation. Health professionals are required to work with cultural practices and “people in the community who preserve traditional beliefs” (Macdonald, 1992:60). The HPCSA added the phrase ‘from different cultural backgrounds’ when they adapted CanMEDS, as seen in Key Competency 2.1:

Develop rapport, trust and ethical therapeutic relationships with patients/clients, families and communities from different cultural backgrounds (HPCSA, 2014:5).

This additional phrasing barely does justice to the vast communication challenges experienced in the South African health system because of the socio-cultural and ethnic diversity that characterises the ‘Rainbow Nation’ (Crawford, 1999; Deumert, 2010).

2.3.5 Patient-centred communication and professional identity

Professional self-identity can be defined as “the extent to which an individual feels like a member of the profession of which they intend to become a part” (Vivekananda-Schmidt, Crossley & Murdoch-Eaton, 2015:1/9). The process of acquiring professional identity as a doctor is a dynamic process involving “the renegotiation of the characteristics, norms and values previously held by the person; resulting in the end in the person ‘thinking acting and feeling like a physician’” (2015:2/9). This view is akin to the idea of identity as ‘self in situation’ engaged in communication with ‘others’ (Tracy & Naughton, 1994). Both socialisation (social memberships) and participation (lived experiences) are important in this process (Apker & Eggly, 2004; Vivekananda-Schmidt, Crossley & Murdoch-Eaton, 2015). For this reason, proponents of the patient-centred model insist that patient-centredness must be operationalised at both the interpersonal and systems levels.

However, research done at this institution (Draper et al., 2012a) and elsewhere (Gallentine et al., 2014) suggests that students struggle to operationalise patient-centred communication in clinical practice. The overwhelming burden of disease and understaffed facilities on the clinical platform contribute to a culture of managing patients’ ‘primary presenting problems’ rather than pursuing a holistic approach to the patient’s state of health. If clinicians then also role-model biomedically-orientated communication behaviour, students soon learn that clinical communication in the ‘real’ world is operationalised through more technicalised and dehumanised types of ‘talk’ (Mishler, 1984; Apker & Eggly, 2004). Ongoing socialisation and repeated practice in the academically and emotionally challenging environment of government hospitals have been linked to a decrease in medical students’ empathy (Spencer, 2004).

It stands to reason that immersion in a patient-centred medical curriculum may help students to develop a more critical view of dominant discourses that contribute to the disempowerment of patients, and to actively resist technical and biomedical discourses (Apker & Eggly, 2004) especially outside of peer-to-peer communication. However, in a longitudinal study, Tsimtsiou et al., (2007) demonstrated that while students in a patient-centred curriculum demonstrated more awareness of the patient’s perspective, they became more doctor-centred towards the end of their studies, developing paternalistic ideas of the doctor’s role as a result of “the ‘hidden curriculum’ and inappropriate modelling by clinical

tutors” (Tsimtsiou et al., 2007:149). Role-modelling or ‘transference’ (Vivekananda-Schmidt, Crossley & Murdoch-Eaton, 2015) allows the student to identify with doctors as ‘experts’ but the risk of placing the patient (and the patient’s lifeworld contexts) as the ‘other’ is greater.

Bleakley and Bligh (2008) also warn against the danger of teaching students about patient-centred communication in doctor-centric curriculum activities and environments, even when those clinicians practice patient-centred medicine. Draper et al., (2012a) found that third and fourth year medical students preferred learning activities that centred on the doctor as resource, and while they placed high value on patient contact, they saw the interaction with patients more as an opportunity to practice their skills, rather than a primary source of learning. The problem is then further compounded when patients have been enculturated into passive roles within the hospital setting (Draper et al., 2012a).

One way to counter the development of these doctor-centred behaviours is to actively engage students in explicit, mutually-beneficial ‘collaborative knowledge production’ with patients, where educators “explicitly register their intent to provide a resource supporting student learning, not shaping it” (Bleakley & Bligh, 2008:93). Privileging the patient-student dialogue, with the doctor acting as expert support, recognises that knowledge is ‘co-produced’. This approach sees the patient holistically, as ‘text’, where students must learn simultaneously to “read the patient’s narrative clinically and in lay terms” (Bleakley & Bligh, 2008:106). The locus for identity construction is now shifted away from identification with seniors (role modelling) to identity production in the ‘mirror’ of patients, family members, carers and doctors.

The curriculum activity in which this study is located is one such example, in that the history-taking interview between RHD patient and medical student is explicitly foregrounded as the basis for all the student’s design choices. This conversation provides an opportunity to co-construct what counts as empowering knowledge and to practice ‘healing relations’ (Epstein & Peters, 2009). Students’ health education artefacts and accompanying reflection notes provide a window into what students construct as being patient-centred communication behaviour, and provide insight into the representations of their own identity development process.

The process of developing (and role-modelling) professional identity is dynamic but not necessarily obvious to those involved. For this reason, Mead and Bower (2000) include the doctor's self-awareness (that is, awareness of how their own subjectivities may influence patient care) as a fifth dimension in the definition of patient-centredness. Otherwise,

we are at the danger of giving our future healthcare professionals 'surface professionalism' which 'sidesteps issues of identity and treats professionalism as something physicians can put on and take off like one's stethoscope' (Vivekananda-Schmidt, Crossley & Murdoch-Eaton, 2015:7/9).

In this research study, the students' reflective notes provide some insight into the subjectivities and assumptions underpinning their patient encounters.

2.3.6 Patient-centred communication and patient outcomes

Critics of this model point out that the link between patient-centred communication and improved outcomes are at best tenuous (Epstein et al., 2005; Pilnick & Dingwall, 2011). In a systematic review, Lewin et al., (2001) found evidence to suggest that patient-centred communication is linked to greater patient satisfaction. However, they found limited and mixed evidence of any impact on more distal outcomes such as patients' health status or behaviours. Even research that evaluated the impact of patient training interventions found little change in patient knowledge or self-care behaviours. Another systematic review concluded that despite demonstrating a small but statistically significant correlation between patient-clinician relationship and healthcare outcomes, more research is needed (Kelley et al., 2014)

Despite this critique, patient-centred communication is still presented as simply 'the right thing to do', both on moral and ethical grounds. Patient-centred communication (abbreviated to PPC) is embedded in both a philosophical and theoretical debate:

[t]aking an instrumental view, PCC can be viewed as a means to an end; changes in communication behaviour are seen as unimportant outcomes in themselves in the absence of changes in intermediate or distal outcomes. Alternatively, PCC can be viewed as an end-in-itself: something with intrinsic value regardless of other outcomes. (Epstein et al., 2005:1523).

The debate also finds its way into the hegemonic struggle over medical curricula, where the essence of patient-centred communication is expressed in frameworks such as the

CanMEDS not only as a competency but as an “elusive, trans-contextual ‘way of being’” (Epstein et al., 2005:1524) that finds utterance in the doctor-patient encounter.

2.3.7 Patient-centred communication and the ‘politics of medicine’

McWhinney argues that “the theory and practice of medicine is strongly influenced in any era by the dominant theory of knowledge and by societal values. Medicine is always a child of its time” (2003:17). The practice of medicine as an objective, dualistic and scientific endeavour was born out of the European Enlightenment of the seventeenth century, “when reason was enthroned and modern science was born” (McWhinney, 2003:18). Since then, the technological advances of the last century have ushered in a new era of global connectedness, ‘market logic’, consumerism and neoliberalism (New London Group, 1996; Cope & Kalantzis, 2000). Patient-centredness as a theory and a clinical method evolved out of a rejection of many of the values that dominated ‘objective’ medicine, and represents an attempt at “restoring the balance between thinking and feeling” (McWhinney, 2003:26). As the patient-centred approach finds its way around the world, it is inevitably brought into contact with other social and political frameworks that affect knowledge production and societal values. One conversation that has relevance to patient-centredness is that of ‘decolonisation’, which is sweeping through many so-called third world nations and demands “the dismantling of colonialism as the dominant model on which society operates” (Mundel & Chapman, 2010:167).

In South Africa, the failings of the current health care system have deep historic roots. The period of Dutch and British colonial subjugation from the seventeenth to the early twentieth century and the ensuing years of ‘apartheid dispossession’ saw a marginalisation of indigenous and traditional medical knowledge in favour of ‘orthodox’ medicine, introduced to local peoples at first by missionaries and later practiced by trained nurses and doctors (Coovadia et al., 2009). Racial discrimination, socio-economic and political segregation, the disintegration of social and community structures in the wake of the migrant labour system and the ensuing “general impoverishment of the African population” (Coovadia et al., 2009:823) led to a massive burden of communicable and non-communicable diseases that is disproportionately large in black communities (Chopra et al., 2009; Coovadia et al., 2009). This means that the public health care system, which is already underfunded and

overcrowded, predominantly serves people who have been systematically disempowered and dominated.

Most doctors graduating prior to democracy in 1994 were white and enjoyed a privileged social and intellectual status; most importantly, they were socially, economically, linguistically and culturally segregated from those for whom they provided care (Crawford, 1999; Deumert, 2010). African nurses were also socialised into these dominant medical and hegemonic discourses, reproducing the system's inherent asymmetry beyond racial lines (Coovadia et al., 2009). The post-apartheid PHC government's policies (Coovadia et al., 2009) have contributed significantly to growing a new and more representative generation of medical graduates, even though the PHC philosophy has seen only limited uptake in medical education (Hartman, 2014). Transformation of the public health system in the post-apartheid period is ongoing but has been slow, and massive health care disparities persist even 25 years after democracy. These socio-political conditions form a backdrop to contemporary calls for 'decolonising' health sciences education'.

This outline barely does justice to many complex and interlinked issues, and runs the risk of essentialism and reductionism. It suffices to say that in such a time of critical consciousness, there is a need for "recognizing the social constructedness, the social locatedness, of all knowledge; challenging claims to universality that are grounded in social dominance and privilege" (Beagan, 2000:1264).

If McWhinney's sentiments hold true, that is, that medicine is 'a child of its time', then it makes sense that constructs that originated in western cultures and were taken up by non-western curricula should be re-examined. In other words, even a philosophy as 'person-centred' as that underpinning patient-centred communication must be interrogated to determine how fit-for-purpose it is in this context. All communication is linked to 'culture' (Beagan, 2000), whether ethnic, institutional, or otherwise. It is steeped in values which are not always explicit. The danger of following any teaching, including that of patient-centred communication, lies in unquestioning acceptance. As Freire pointed out,

attempting to liberate the oppressed without their reflective participation... is to treat them as objects which must be saved from a burning building; it is to lead them into the populist pitfall and transform them into masses which can be manipulated (1970:47).

It is through the process of reflective participation that we find our own ‘voice’, as doctors, as patients, as citizens. Furthermore, as medical educators rooted in this place and this era, we cannot separate ‘care’ from ‘transformation’. Kress argues that “[r]eproduction’ is no longer a plausible metaphor for institutional education and its curricula” (2000:2). Rather, this era needs an ‘education for instability’ and curricula that act as ‘designs for the future’ (Kress, 2000). This study is one small contribution in a larger process, and argues that

in an age of uncertainty, ‘ontology triumphs epistemology’, thus our will to learn and think critically – how we behave, feel and think – is more important in this age than simply what we know, not that the latter is not significant. Attributes such as compassion, criticality and a sense of responsibility are necessary for individuals to contribute towards civic reconciliation and transformation in South Africa (Leibowitz et al., 2012:xi).

2.3.8 Summary

In conclusion, a patient-centred approach to communication is not a unitary concept, but rather incorporates several distinct but interlinked elements. It includes taking a holistic approach to illness, ‘seeing’ through the patient’s eyes, ‘co-constructing’ a shared understanding and therapeutic alliance, and sharing responsibility where possible. Despite attempts towards enhancing conceptual clarity, there is much confusion among users (students, educators and policy-makers) in practicing patient-centred communication in clinical encounters. In South Africa and other places where non-western cultures dominate, there is a need to explore what patient-centred communication ‘looks like’ across different contexts. Furthermore, since the professional identity and personal characteristics of the physician play an important role both in terms of interpersonal interaction and system transformation, reflective participation should be encouraged while ‘being realistic about personal limitations’ (Stewart et al., 2003). In the next section, an argument is made for positioning health education as a type of patient-centred communication behaviour.

2.4 Patient-centred health promotion and health education

Health promotion is firmly entrenched both within South Africa’s PHC philosophy and within the patient-centred model of care (Stewart et al., 2003; Epstein & Peters, 2009). In CanMEDS, health promotion is realised in the ‘Health Advocate’ role (Frank, 2005; HPCSA, 2014). The definition of patient-centred communication used in this research (Epstein et al., 2005) does not explicitly foreground a health promotion element, but makes

provision for personalised health education of individuals to be treated as a specific type of patient-centred communication. The next section explains how the elements of patient-centred communication apply to health education communication, and requires a more detailed explanation of the interlinked concepts of health promotion, health education and ‘health literacy’.

2.4.1 Health promotion and ‘health literacy’

Following on the World Health Organisation (WHO) definition of health as a state of complete well-being, health promotion is defined as “public health action which is directed towards improving people’s control over all modifiable determinants of health” (Nutbeam, 2000:261). Health promotion in this sense goes beyond what Macdonald calls “the West’s preoccupation with the psychology of individual learning” (1992:160) and includes a much broader view that considers multi-level outcomes across different platforms. At the highest level, health promotion has ‘end-stage’ health and social outcomes that relate to the quality of a person’s life, mortality or disability. These outcomes are influenced at an intermediate level by personal factors (people’s personal behaviours and lifestyles), social factors (having access to health services) and structural factors (living and working in certain environments). The reality is that most ‘health promotion’ activities and interventions affect people at an even lower and more basic level. Targeted mass communication may raise societal awareness, and lobbying and activism may result in health policies being adopted (Nutbeam, 2000). Similarly, a person or community’s knowledge about a disease may be modified through health education activities, which may or may not result in lifestyle changes and ultimately living a longer healthier life.

Although health education seems almost insignificant in this much larger scheme, Nutbeam (2000) insists that it has an important role to play, especially in improving people’s ‘health literacy’. ‘Health literacy’ is a discourse-specific concept in the field of health promotion, and the term ‘literacy’ has a different meaning from how it is understood in educational and sociolinguistic settings. In the United States, ‘health literacy’ usually refers to how patients’ reading, writing and cognitive skills affect their ability to comply with prescribed therapeutic regimens. However, the WHO takes a broader view. If health is a state of complete well-being, then ‘health literacy’ concerns

cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways that promote and maintain good health (Nutbeam, 2000: 264).

Nutbeam suggest that ‘health literacy’ involves three components. The ability to read and understand instructions (for example, on medicine labels) is referred to as ‘functional health literacy’. The cognitive and social skills that characterise someone’s information seeking behaviour and their ability to apply new knowledge is referred to as ‘interactive health literacy’ while ‘critical health literacy’ signals the ability to analyse, critique and use information to exert greater autonomy in interaction with health professionals (Nutbeam, 2000). In this study, ‘health education’ refers to activities directed at improving ‘health literacy’ in this broader, critical sense.

2.4.2 Health education for empowerment

Adherence to treatment may be difficult to achieve and can impact significantly on patients’ everyday lives. There is no evidence that health education directly increases treatment adherence. Rather, “[t]he factor that appears to most strongly correlate with adherence is the patient’s own beliefs influenced by personal knowledge and experience as well as that of family and friends” (Robinson et al., 2008:603). For health education to be meaningful, what counts as ‘useful knowledge’ must therefore be co-constructed between physician and patient. This shared understanding becomes the foundation for treatment recommendations, and positions the patient to make informed choices regarding their treatment. This process represents patient-centred empowerment – what the WHO describes as “a set of self-determined behaviours based on patients' individual needs for developing autonomy and competence with their disease” (Prigge et al., 2015:375).

From these arguments, health education can be described as having a ‘competency’ domain and an ‘autonomy’ domain. The pervasive thread of the patient-centred philosophy is obvious. Health promotion’s ‘competency’ and ‘autonomy’ resonate with patient-centredness’ dimensions of ‘information’ and ‘control’ (Bensing, 2000), the interview’s dimensions of ‘shared understanding’ and ‘shared decision-making’ (Illingworth, 2010) and the ‘outlook’ and ‘activation’ strategies involved in chronic diseases management (Michie, Miles & Weinman, 2003). The term ‘empowerment’ refers to a broader category related to self-efficacy in health and lifestyle in general, whereas ‘patient activation’ refers to “a tighter

domain, collecting information on patients' knowledge, skills, and motivation on specific healthcare-related behaviours, rather than on life-style" (Fumagalli et al., 2015:388). Activation strategies aim to

help patients become more knowledgeable and take control over their bodies, disease and treatment. In this definition, empowerment is viewed as a process of 'activating' patients, who as a result of rejecting the passivity of sick role behaviour and assuming responsibility for their care [are] more knowledgeable about, satisfied with, and committed to their treatment regimens (Aujoulat et al., 2008:1229).

Since this study relates specifically to rheumatic heart disease, students' references to 'empowerment' are treated as referring to patient 'activation'.

In summary, health education for patient empowerment or activation can be seen to have both an epistemic element and a relational element. The epistemic aspects of health education communication contribute to the patient's level of 'competence' concerning their disease (WHO). It must account for both the health carer's and the patient's concerns, especially when their perspectives diverge. Information is 'co-constructed', as it has to deal with both 'scientific facts' as well as the patient's values, experiences and cultural beliefs (Epstein et al., 2005) and with specific or possible barriers to treatment adherence (Robinson et al., 2008). The epistemic domain may be affected by barriers to learning, and must also account for the patient's language preferences and 'health literacy' (Saha, Beach & Cooper, 2008).

The relational component of empowering health education communication is concerned with 'shared decision-making' or, in WHO terms, the patient's 'autonomy'. Since

information can sometimes increase patients' cognitive and emotional burden and lead to greater confusion rather than clarity, the right to autonomy must be balanced with the ethical obligations to do good for patients (beneficence) and not to harm them (nonmaleficence) (Epstein et al., 2010:380).

What counts as knowledge must be constructed and presented in ways that respect patients' autonomy preferences and engage them to participate as much as possible. Participation is seen as a wider 'neighbouring concept' (Fumagalli et al., 2015) that extends beyond the health education encounter. It is part of the relational domain in that it "encourage(s) deeper discussions with family members and clinicians" (Epstein & Peters, 2009:197) and in time contribute to 'healing relationships' (Epstein & Peters, 2009). This study looks at health

education artefacts that were made by medical students for patients with RHD as instances of patient-centred, empowering health education, where their meaning-making involves both epistemic and relational concerns. In the next section, social semiotics is presented as an approach to describing the ‘how’ and ‘what’ of textual meaning-making.

2.5 A multimodal social semiotic approach to health education

Multimodal social semiotics refers to an approach that sees meaning-making as a ‘social process’ (Jewitt, 2009) and explores instances of meaning-making through the textual resources that people “use and develop to represent their understanding of the world and to shape power relations with others” (Bezemer & Jewitt, 2009:1). The term ‘multimodal’ denotes a field of application, indicating that meaning-making occurs across a range of modes that include speech, written language, colour, layout, moving and still images, and others (Jewitt, 2009). Multimodal social semiotic analysis refers to

qualitative, fine-grained analysis of records of meaning making, such as ‘artefacts’, ‘texts’, and ‘transcripts’, to examine the production and dissemination of discourse across the variety of social and cultural contexts within which meaning is made (Bezemer & Jewitt, 2009:1-2).

Multimodal social semiotics by itself does not describe the ‘why’ of meaning-making, and is best used in conjunction with other theories (in this case, patient-centredness) to move from description to interpretation (Jewitt & Oyama, 2001). In the next section, a more detailed account is provided of the theoretical background of a social semiotic approach.

2.5.1 Overview of multimodal social semiotics

Multimodal social semiotics has its roots in Hallidayian systemic functional grammar (Halliday, 1978). Halliday argues that a system of communication has three requirements or metafunctions. Representing the world and its participants and actions constitutes ideational or representational meaning. Framing certain types of relationships between the author, the message and the reader constitutes interpersonal or interactional meaning. Lastly, connections between and across elements, or ‘complexes of signs’ help to construct internal and external coherence, and identifies the means of communication as ‘a certain type of text’. This is referred to as the textual or organisational metafunction (Halliday, 1978; Kress & Van Leeuwen, 2006; Jewitt, 2009). These functions are realised through semiotic resources or ‘signs’ that have acquired certain meanings through social use in

communities (Hodge & Kress, 1988). Halliday sees semiotic resources as organised in abstract grammatical or network systems. Resources are selected from these grammatical systems based on their desired functionality, but people use, adapt and interpret signs in ways that are context-dependent and differ across cultures and settings. Halliday's systemic functional grammar therefore conceptualises semiotic systems as being simultaneously 'organised' and 'dynamic', and constituting 'meaning potential' rather than 'stable categories'. Hodge and Kress adopted a 'looser' reading of Hallidayan systemic functional grammar (Jewitt, 2009) in that they emphasise the social aspect of meaning-making. This approach foregrounds the importance of 'context', and marks their point of departure from other contemporary theoretical developments in semiotics.

The use and value of a multimodal social semiotic approach in research lies in three specific areas: it provides frameworks and resources for describing meaning-making in textual data, it foregrounds the selection of signs as being motivated by the interests of the sign-maker, and it considers meaning-making as occurring across a range of different modes that include writing but also image, colour and others. Each of these components are relevant to this study and are further discussed in the next sections.

2.5.1.1 Meaning-making as situated sign-making

Kress and Van Leeuwen suggest that "the key notion in semiotics is the 'sign'" (2006:6). 'Sign' refers to an instance where form (the 'signifier') is brought together with meaning (the 'signified'). In *Reading Images*, Kress and Van Leeuwen use the example of a three-year old's drawing, where the roundness of a circle is meant to indicate 'wheel' that translates further into 'car'. The child's meaning-making involves a "double metaphoric process in which analogy is the constitutive principle" (Kress & Van Leeuwen, 2006:8). Resources for meaning-making ('signifiers') and the ways in which they are used to form 'signs' are regulated in more or less stable ways by the discourses and social norms of the environment. They persist as 'regularities' that act as 'rules' or an organising 'grammar' of use (Van Leeuwen, 2005; Bezemer & Jewitt, 2009). These 'rules' are not absolute or 'just there', but originate from normative use by particular social communities. The idea of 'grammar' refers to "a shared cultural sense of a set of resources and how these can be organised to realise meaning" (Jewitt, 2009:22). Social semiotics draws on these Hallidayan systems networks as 'available resources' but places greater emphasis on people's situated

choice (Jewitt, 2009) and how they transform meanings through use. Social semiotics thus “brings together, without incompatibility, social convention and individual agency (Newfield & Maungedzo, 2006:5). The medical students in this study draw on their own life-worlds as resources; students “are involved in the negotiation of a multitude of voices from past and present contexts” (Shay, Moore & Cloete, 2002:309). The ‘stuff’ of their communication – their texts – function as ‘complex signs’, which arise from the sign-maker’s “physiological, psychological, emotional, cultural, and social origins” (Kress, 2005:11).

Immersion in the institutional and clinical environment provides access to academic knowledge about disease as well as discursive knowledge – ‘ways of being’ a doctor, and perceptions about patients’ identities and needs based either on own experience with patients, or from observing ‘role-models’ (clinicians) at work. Students also inhabit (and therefore draw on) different cultural and social communities that may or may not share the same values or social orientations, as well as a public life-world dominated by discourses of consumerism and entertainment. The richness of their designs lie in drawing from both semiotic and discursive resources for making meaning. A social semiotic approach sees their choices as being the result of multiple and even conflicting ‘prompts’ (Kress, 2005) arising from their professional, private and public lives.

2.5.1.2 Meaning-making based on ‘Interest’

In line with this ‘looser’ and situated reading of texts, social semiotics foreground the agency and ‘interest’ of the sign-maker during meaning-making. Social semioticians argue that the selection of resources for meaning-making are not impartial or consistent across users. Rather, resources are chosen in response to a ‘prompt’ that serves the interest of the sign-maker at that moment. For example, a student immersed in a physiology lecture associates the colour red with the life-giving vitality of oxygenated blood. If you asked someone on the street, they would most probably say that red means ‘danger’ or ‘stop immediately’. For a doctor in a hospital, the meaning may lie somewhere in-between; the red colour of certain electrical wall plugs is meant to identify vital life support equipment which may not be unplugged. On a cardiac monitor, a red icon typically represents an alarm being triggered. In other words, the meaning potential of the colour ‘red’ as a semiotic resource is not stable across different communities, and may signal a variety of meanings depending on who the

target audience is and what the message is about. How and why that resource is enlisted and adapted into a 'sign' (signifying new meaning) arises from the sign-maker's own experience and "cultural, social and psychological history" (Kress & Van Leeuwen, 2006:7), as well from a situated assessment of and response to a specific situation or need. Multimodal artefacts are 'material residues' of their designers' interest, discursively shaped as "the semiotic manifestation of material social processes" (Iedema, 2001:187).

The consequence of foregrounding the social nature of meaning-making is that it "places the work of the sign-maker at its centre" (Jewitt, 2009:31). The interest (history, experiences, responses) of the sign-maker, rather than the sign itself, becomes the subject of investigation. What is seen as being essential for meaning-making in that moment depends on the sign-maker. In Kress' example of the child's drawing, it is the 'wheel-ness' of the car that is criterial to this child, and not the car's shape or position on a road. Furthermore, the "criterial aspect is then regarded as adequately representative of the object in a given context" (Kress & Van Leeuwen, 2006:7). This means that the selection of criteriality rests on plausible assumptions by the sign-maker that this meaning is shared by the audience. The sign thus represents a negotiated and situated understanding of the form and its meaning, balancing somewhere between the sign-maker's interest and his or her assessment of the audience. Students' notions of patient-centredness are realised in the extent to which they demonstrate "nuanced appreciation for the patients' values and experiences" (Epstein et al., 2005:1524). A social semiotic approach to their texts foregrounds "a situated perspective on communication" (Bezemer & Jewitt, 2009:3) and assumes that "context has to be theorized and understood as another set of texts" (Hodge & Kress, 1988:8).

2.5.1.3 Meaning-making as being 'multimodal'

Social semiotics recognise that people use a range of representational forms to communicate, and both the forms and the relations between them need to be accounted for to understand meaning-making (Jewitt, 2009). Just as the drawing of circles required the words 'this is a car' to fix meaning, the meaning of red is realised through the shape of a three-pronged plug and its position on the wall of an Intensive Care Unit. Meaning-making in this instance involved both colour and the physicality of object and space. Social semiotics has increasingly been applied to other fields and forms of communication, such as children's drawings (Mavers, 2011) engineering drawings (Simpson, 2014), comic books (Huang,

2014), African artefacts (Newfield & Maungedzo, 2006) and jewellery design (Salaam, 2014). The interest in multimodal research is an indication of the global changes that are taking place in communication practices and technologies. Of course, all communication, including writing, is multimodal in the sense that decisions on the type of font or even the material that a poem is written on contributes to the meaning, but traditional linguistic tools and frameworks that were developed for language (speech and writing) cannot account for it all, and cannot be stretched to include the visual and other modes of modern communication. Multimodality denotes a ‘field of application’ for the social semiotic ‘theory of meaning’ (Bezemer & Jewitt, 2009) and together, social semiotics and multimodality provide the tools for describing and analysing representation, organisation and interactional meaning across different modes.

The following section deals with concepts that are key to a multimodal social semiotic approach. The discussion relates to the definition and use of mode, and includes concepts such as modal resource, modal affordance and the relation between modes. The section also discusses the site of display and the use of framing in relation to this project.

2.5.2 Key concepts in a multimodal social semiotic approach

A mode is understood to be “a set of socially and culturally shaped resources for meaning-making” (Bezemer & Jewitt, 2009:7). Examples of modes include speech, writing, image, layout, colour and even dance. Each mode has different modal resources available, for example, writing as a mode depends not only on sentences and wording to create meaning, but also on graphic resources such as font size (for instance, shouting in capital letters), framing devices (using an exclamation mark) and markers of salience (for instance, red colour). The same resource may also fulfil different social functions. For example, the colour red, materialised in a hospital wall plug, functions as an identifier (‘life support equipment’), an emphatic (‘do not disconnect!’), and as a way of ‘connecting’ this equipment with other life support equipment across clinical spaces. The meanings assigned to resources such as colour are not the same everywhere; therefore, what counts as a mode is determined by the communities who use them, and how they use them.

This argument suggests that semiotic resources have ‘potential’ rather than fixed meanings which are actualised through social use. Kress uses the term ‘modal affordance’ (2003) to

refer to what semiotic meaning a mode may realise. Modes are selected on the grounds of their usefulness for doing certain types of communicative work. The meaning potential of a mode is closely linked to how it has been materially, culturally and historically used; that is, “the affordance of a mode is shaped by what it has been repeatedly used to mean and do its ‘provenance’” (Bezemer & Jewitt, 2009:8).

Furthermore, each mode also has certain ‘unavoidable affordances’ or what Kress calls epistemological commitments (Kress, 2003). For example, a photograph of a person with rheumatic fever requires commitment to aspects not needed if signs of rheumatic fever were instead written down, such as: is the patient a child or an adult? What skin colour is this person? On the other hand, explaining some information (for example hereditary aspects of rheumatic fever) may not be possible or feasible through image. Modal affordance and modal commitment means that the designer’s choice of mode determines ‘what can be said’, but also what information will be left out. Modes may also have a certain ‘logic’ that determine when and where things can be ‘said’, for example the mode of speech is governed through the sequence of time, whereas image is governed through the simultaneity of space (Jewitt, 2009).

An artefact represents a modal ‘ensemble’ or configuration of modes. Since different modes carry different potentials for meaning, the message is also distributed across all the modes, but not necessary evenly. Jewitt argues that “at times the meaning realised by two modes can be ‘aligned’, at other times they may be complementary and at other times each mode may be used to refer to distinct aspects of meaning and be contradictory, or in tension” (2009:25). For example, Weiss (2014) found that in her attempt to foreground the ‘the Pill’ as contraceptive method while avoiding the risk of seeming paternalistic, a medical student ‘stacked’ the design of her sexual health pamphlet with visual and verbal reminders of the Pill and even used images of the contraceptive tablets as ‘bullets’ for lists.

Designers of multimodal texts must also make decisions regarding the display and framing of the message. An artefact such as an educational board game, for example, requires reshaping a medium (cardboard) to create the surface on which information is displayed. However, the medium has both a material aspect (the substance through which meaning is realized), such as the dice and print-on-cardboard of a game, as well as a social aspect, in that board games are associated with certain types of social practice (Kress & Van Leeuwen,

2006). Rather than merely a ‘site of display’, the board game becomes a ‘site of engagement’ (Jones, 2013) or ‘social occasion’ involving the configuration of modes and media for “interaction between the display and those who use it” (Jones, 2011:114). This assumption of interaction can be problematic in textual analysis because social semiotics often focuses only textual productions, rather than how texts are ‘used’. However, there are limitations to studying material artefacts outside of their uses and settings, and recognising these limitations provides another rationale for including multiple perspectives in the analysis of a phenomenon.

Every mode has framing devices apt for the materiality of that mode, and these connect or segment entities to provide internal coherence and unity. In health promotion pamphlets where writing dominates, for example, punctuation, paragraphs and headings function as framing devices at different levels. Framing devices are particularly useful in understanding “the architecture of a text” (Fairclough, 1992:174) or

how a text’s purpose is revealed through close observation of the ways in which component parts connect and thus contribute to its overall structure and flow (Lentz, 2008:24).

Genres frame meaning in recognisable, conventionalised ways, in terms of the modes, media and social relations underpinning a communicative task, and is specific to a community of users (Bateman, 2008). Genre is associated with a ‘discernible pattern’ related to a text’s social purpose. In the previous example, the board game can be described as a genre, in that it acts as a ‘temporarily stabilized frame of reference’ that guides the audience on how to view and interpret the text (Bateman, 2008). While the shape or conventions of a genre may be more or less stable, the ‘mixing up’ of conventions and genres is a reality of normal language use (Kress, 2003), as “there will always be new situations which require new genres” (Huang, 2014:89). Students draw extensively on the meaning potential of different genres and conventions from both academic and everyday texts to create ‘new’ combinations apt for communicating their message.

2.5.3 Different approaches to meaning-making and multimodality

It is often useful to understand a theoretical approach by looking at where it overlaps with and differs from similar or contemporary approaches. Patient-centredness has been explored in qualitative research using conversation analysis in a pragmatic approach (Mishler, 1984;

Barry et al., 2001; Wynn & Wynn, 2006). Bezemer and Jewitt (2009) posit that both social semiotics and pragmatics are concerned with a ‘situated perspective’ in meaning-making, but that these approaches differ on multimodality. Pragmatics is only concerned with other modes in the sense that speech is concerned with gesture and gaze. Whereas speech and writing are always methodologically privileged in “fine-grained, moment to moment analysis” (Bezemer & Jewitt, 2009:4), non-verbal signs are acknowledged as providing context but are not always analysed. In contrast, non-verbal modes are treated as equally important in multimodal analysis. This multimodal ‘scope’ of social semiotics means that

it can attend to forms of meaning making which remain largely unattended in Pragmatics, notably in contexts where people are not physically co-present and where speech is not involved, such as a child drawing (Bezemer & Jewitt, 2009:5).

It is important to remember that multimodality is “a field of application rather than a theory” (Jewitt, 2009:2) and that the approach that a researcher takes in analysing multimodal texts will differ in relation to where his or her interest lies. Jewitt (2009) lists at least three different perspectives on multimodality: that of multimodal interactional linguistics taken by Scollon and Scollon (2003) and Norris (2004), O’Halloran’s (2011) multimodal discourse analysis (MDA) and Kress and Van Leeuwen’s multimodal social semiotics (2006). Apart from having different historical influences, these three approaches differ in the degree of emphasis that is given to context, the agency of the sign-maker and internal (organizational) aspects of modal or network systems, such as level and rank (Jewitt, 2009). In social semiotics, the interest of the sign-maker within a specific social context is fundamental to the enquiry. This perspective requires a more flexible notion of grammar. For example, both social semiotics and MDA draw on Halliday’s systemic functional grammar (based on ideational, interpersonal and textual metafunctions of language). However, MDA uses the metafunctions as a central framework for mapping ‘systems of meaning-making’ whereas social semioticians use the metafunctions more “as a conceptual tool to describe and explore the semiotic resources and meaning potential that people use to make meaning rather than to map the system itself” (Jewitt, 2009:17). Analytical dimensions of a resource (such as layout) “are generated from the analysis of the texts themselves, rather than from a predefined system” (Jewitt, 2009:30). While this study hopes to contribute to the mapping of resources for learning, its focus is primarily on the communicative work that students realize.

Multimodal social semiotics provides a theoretical lens on discourse, or “how language is used ‘on site’ to enact activities and identities” (Gee, 2005:7). Discourse analysis looks at texts to see how language is used to construct an idea, what assumptions it reveals and what the discourse achieves (its implications) (Burck, 2005). Semiotic modes offer means for the expression of discourse, and since the makers of texts are embedded in the discursive arrangements of specific communities, their choice of resources could indicate the presence of different (even conflicting) discourses. Kress’ principle of ‘interest’ is intricately linked to discourse and identity (2011). Both the students’ choices and the patients’ responses shape and are shaped by the doctor-patient situation: what each party says and how they say it contributes to the types of relationships, roles and conventions that are recognized by participants as being a certain type of social situation.

At the same time their communication choices are bound by the constraints of those same relationships, roles and conventions. Therefore, analysis of these artefacts using a multimodal social semiotic approach is “inherently and inevitably an instance of discourse analysis” (Kress, 2011:212). What distinguishes it from the Multimodal Discourse Analysis movement is that a social semiotic approach foregrounds “macro-political and social/institutional interests” (Jewitt, 2009:31) rather than exploring discourse at micro-textual level. This research study is interested in the ways societal and professional discourses are taken up, reproduced or contested in doctor-patient interactions (Burck, 2005). It aims to analyse and theorise discourse from a social semiotics perspective.

2.5.4 Multimodal social semiotics and recontextualisation

The creation of a ‘new’ learning resource such as a multimodal health promotion artefact involves re-articulating ‘existing’ knowledge and selecting different ways of presenting the knowledge content to produce a ‘version of knowledge’ (both in content and representation) that is apt for the intended audience or social context (Bezemer & Kress, 2008). Underpinning this idea is the notion of recontextualisation (Bernstein, 2000).

2.5.4.1 Bernstein and Recontextualisation

Bernstein (2000) was interested in exploring how cultural values were produced or reproduced in the process of constructing curriculum and pedagogy, and he focussed on the processes by which knowledge becomes shaped in specific ways (Marsh, 2007). Using the

example of carpentry, he points out that in the process of creating the pedagogic subject of ‘woodwork’, it is not only the specialized skills of carpentry that are transformed, but also the socio-cultural contexts which were associated with carpentry as a trade. The process resulted in changes to the subject content, the pedagogic method and the social order underpinning learning. This argument gave rise to the concept of the ‘pedagogic device’ (Bernstein, 2000; Bernstein & Solomon, 1999).

A short explanation of Bernstein’s pedagogic device is useful for understanding the progression from knowledge generation to knowledge consumption. The pedagogic device refers to the “ensemble of rules or procedures via which knowledge (intellectual, practical, expressive, official or local knowledge) is converted into pedagogic communication” (Singh, 2002:572). It operates across three different domains: the fields of production, recontextualisation and reproduction. The generation of expert knowledge, for example research on genetic aspects of rheumatic heart disease, occurs within the field of production, where knowledge is “encoded in highly complex symbolic forms and must be decoded or translated (pedagogised) in order to be accessible to those outside the specialist domains” (Singh, 2002:574).

The term ‘pedagogic discourse’ refers to the ‘recontextualizing principle’ whereby other discourses are selectively appropriated, relocated and refocused (Bernstein, 2000) for learning. Two related discourses are embedded during recontextualisation. The ‘instructional discourse’ has an epistemic focus; it is concerned with competencies related to discipline-specific knowledge. Epistemic considerations inform a subject’s curriculum content and how knowledge is organised. The ‘regulative discourse’ concerns the social order governing the transmission and acquisition of knowledge. These are relational considerations which underpin a curriculum’s ideological orientation. From this point, the ‘pedagogised’ knowledge must again be reproduced or adapted for consumers in the learning environment. In this study, both medical students and patients are viewed as ‘consumers’ of knowledge at different levels. The classroom itself as well as the student-patient encounter both operate as recontextualizing fields with different epistemic and relational concerns, where students and patients may exert influence to change the content and structure of knowledge and the relations underpinning learning (Bernstein, 2000).

Recontextualisation requires that one selects a ‘starting point’ for the creation of text, but it is important to acknowledge that it is an artificial one. All texts are in some way ‘intertextual’ (Fairclough, 1992); they draw more or less overtly on specific aspects of other texts past and present, such as quoting another, or through incorporating strategies of discourses and life-worlds, such as web-page lay-out. Intertextuality is a larger category that points to the nature of texts in general as being “full of snatches of other texts” (Fairclough, 1992:84).

2.5.5 A social semiotic interpretation of recontextualisation

Recontextualisation is understood here as the purposeful remaking of text originating from one context into a form suitable for another social context (Bezemer & Kress, 2008). Drawing on Bernstein’s concept of recontextualisation, Bezemer and Kress developed a social semiotic framework for the analysis of pedagogic texts. In analysing school textbook and other learning resources, they identified certain semiotic principles underpinning recontextualized texts, namely, selection of content and representational mode, arrangement and foregrounding of certain elements and social repositioning of interactive participants. These principles are outlined below and discussed in more detail in chapter 4.

Since not everything in the originating context is relevant to the new, recontextualisation requires a selection of content and representation that is apt for the new site and audience. This principle relates to Halliday’s ideational metafunction (1978), which realises representations of the world and its actors and actions. ‘Representation’ concerns the way selected content ‘takes shape’ and is arranged in different ‘patterns’ of design to represent the experiential world. Representational choices are mediated through discourse (Fairclough, 1992; Kress & Van Leeuwen, 2006) and involve represented ‘participants’ (the objects, people or subject matter of the topic) and ‘processes’ (who does what to whom, or how participants relate to each other). The ways in which participants and processes relate to each other give rise to structures of representation that

can either be narrative, presenting unfolding actions and event, processes of change, transitory spatial arrangements, or conceptual, representing participants in terms of their more generalised and more or less stable and timeless essence, in terms of class, or structure or meaning (Kress & Van Leeuwen, 2006:79).

Bezemer and Kress’ second principle concerns the organisation of knowledge. A pedagogic text such as a school textbook (or a health education artefact) acts as a type of ‘tutor’ in that

it provides ‘cues’ as to what is important, and ‘what belongs where’ (Weiss & Archer, 2014). Its usefulness depends not only on what information is selected and in what form it is presented, but also on how the information is structured. Ensuring coherence through the organisation of a text relates to Halliday’s textual function of language (1978). Textual coherence is accomplished when all the elements of a design work together across modes to make it a specific type of text. For example, in Weiss and Archer’s study of pharmacology textbooks (2014), scientific wording and complex nominalisations were combined with humorous anecdotes and cartoons to position the text at the level of scientists, who can ‘poke fun’ at other scientists. At an organisational level, coherence is realised through the way information is arranged, through the order in which information is accessed (the preferred reading path or ‘directionality’) and through the foregrounding and backgrounding of information as being more or less important (assigning ‘salience’).

The third principle is that of ‘social re-positioning’ which realises a text’s pedagogic orientation. Re-positioning has an interpersonal function (Halliday, 1978) in that the author as ‘teacher’ and the text consumer as ‘learner’ are ‘interactive participants’ (Kress & Van Leeuwen, 2006) in the process of ‘learning’. The pedagogic orientation of a text realises embedded assumptions and expectations. For example, arranging information as more ‘spaced out’ may suggest an ‘ideology of simplicity’ which signals “lesser capacity to process information” (Bezemer & Kress, 2008:190). Similarly, texts which incorporate interactive features such as hyperlinks realise expectations that learners take control of their own learning. Two interlinked components are important to constructing the pedagogic relationship in recontextualised texts: the degree to which information is presented as being ‘credible’, and assumptions and expectations regarding learners’ participation and responsibility. In a social semiotic approach, these two concerns may be explored using the concept of ‘modality’. Modality refers to the ‘truth value’ of a proposition (Kress & Van Leeuwen, 2006). It requires a consideration of one’s audience because “modality judgements are social, dependent on what is considered real (or true, or sacred) in the social group for which the representation is primarily intended” (Kress & Van Leeuwen, 2006:155-156).

2.5.5.1 Health education and Recontextualisation

Students’ health education artefacts are meant to be ‘patient-centred’ learning materials for specific RHD patients. Bernstein’s pedagogic ‘discourse of competence’ and ‘discourse of

social order' are echoed in the patient-centred model's discourses of 'shared knowledge' and 'shared responsibility' (Illingworth, 2010) and empowerment's 'competence' and 'autonomy' (Prigge et al., 2015). Students' design choices represent their 'interest' at that moment, which arises from their 'inner conversation' (Holquist, 2002) on how to educate their patients on specific aspects. Their choices are not only informed by their understanding of the needs of the patient and their take on the doctor-patient relation in that context, but also by their understanding of the rhetorical purpose and assessment criteria of the task and their technical ability in working with the materiality of the chosen medium. Their designs articulate different voices and mixtures of genres that best respond to what they see as a need in that context. In this study, students' communication behaviours represent 'informed flexibility', or "the degree to which the individual physician can adapt the consultation to the changing needs of one patient, or the different needs of different patients" (Epstein et al., 2005:1523).

Making a health education artefact requires epistemic choices; students need to construct a shared understanding of the problem by 'selectively appropriating' and re-presenting certain disease information while leaving others out. What counts as meaningful information is drawn from various sources, which include academic texts, the student's own experiences (both as a trainee doctor and as a member of social communities) and insights gleaned from 'seeing through the patient's eyes'. Recontextualisation has epistemological consequences (Bezemer & Kress, 2008) in that what counts as 'knowledge' may change depending on the context.

Recontextualisation also has pedagogic consequences. A student may assign new roles in terms of who has credibility, for example, a 'knowledgeable journalist' may seem as the most apt 'teacher' in a specific situation. The articulation of the teacher-learner relationship within the new site of learning has consequences not only for power relations, but also for what can be taught. For example, a 'journalist' may cover both biomedical content (using annotated 'science' diagrams) and psychosocial content (using personal stories and photographs of 'inspirational' RHD patients), whereas a cartoon story read by a mother to her children requires a different educational focus. The process of recontextualisation allows students to frame new and different types of 'conversations' with their rheumatic heart disease patients. Of course, they assume that patients view these 'new teachers' as more 'legitimate', and this is in itself meaningful.

Viewing students' artefacts as pedagogic, recontextualised work has consequences at a higher level. Bezemer and Kress expressed the hope that their social semiotic framework would stimulate debates on the use of multimodal texts for learning, to counter "ideologies of simplicity, ability, and the regular panics around "dumbing down" of culture in general" (2008:193). Certainly, their work on recontextualisation has provided the tools for gaining a new perspective on patient-centredness, which is a complex and poorly-understood phenomenon in medicine. Approaching students' artefacts as recontextualised texts elevates the much-maligned 'health promotion curriculum activity' to an academic level. Recontextualisation also provides opportunities for exploring how students' professional identities 'develop' in conversation with other people and the world. In creating their artefacts, the moment of sign-making becomes

the moment in which individuals experience change, and at that moment change themselves; it is at the same time the moment when they effect change in the world around them through their making of a new representation (Kress, 1995:2).

2.6 Conclusion

This chapter has outlined the principles and practices of patient-centred communication and the multimodal social semiotic approach to meaning-making. It demonstrated parallels between the discourses related to empowering, patient-centred communication and that of Bernstein's pedagogic device. In doing so, it provides a theoretical argument for positioning medical students' health education artefacts as instances of patient-centred communication, which can be explored in terms of epistemic and relational discourses using a multimodal social semiotic approach.

In the next chapter, the recontextualisation activity is placed within the broader educational and socio-political context. The chapter discusses the ideological values and struggles that underpin the medical curriculum, and relates the teaching of patient-centred communication to the PHC philosophy. The curriculum activity where the artefacts were produced is explained and brought into conversation with the New London Group's (1996) multiliteracies approach to contemporary pedagogy. The chapter also provides an overview of rheumatic heart disease, the illness which forms the backdrop to students' and patients' shared interest.

CHAPTER THREE

Site of study: contesting ideologies in medical education

3.1 Overview of chapter

This chapter details the educational and socio-political background to this study. Two approaches to health care are described in terms of their different ideological orientations and their impact on medical education in South Africa. The chapter outlines how patient-centred communication relates to the Primary Health Care (PHC) philosophy and how it is taught in the PHC-led medical curriculum. This outline provides the setting for the Pharmacology curriculum activity from where the student data emanated. The chapter shows how a foregrounding of the students' 'interest' (Kress, 2003) avoids evaluative terms such as 'bias' and 'stereotyping' when developing health promotion artefacts for patients. Since the artefacts were purposely designed for patients suffering from rheumatic heart disease (RHD), the chapter outlines what RHD is, how it affects the world in which patients live and what role patients, medical professionals and the health care system have in managing the disease. Understanding the value of early intervention in altering the course and outcome of RHD is important, firstly because it places students' 'preoccupation with adherence' in context, and secondly because it underscores the argument for training students in patient-centred health education.

3.2 Understanding medical curricula models in a broader social context

The purpose of medical education is to produce graduates that are equipped to respond to society's health care needs. The characteristics of a fit-for-purpose medical graduate are conceptualised as exit-level 'outcomes', and a medical curriculum is the 'blueprint' of how outcomes are realised and evaluated. While some graduate outcomes are likely to be similar across geographical areas and societies, there are global and regional ideologies that underpin each curriculum and inflect different philosophies amongst graduates. A medical curriculum can never be a 'standard product'. Hartman (2014) suggests that a medical curriculum is at once a statement of the socio-political values of a society and a preparation for a career in health care, which may differ between countries.

The development of health sciences education in South Africa was informed by competing interests and ideologies. Decades of apartheid resulted in a health care system that was historically fragmented along racial lines. A brief outline is presented in chapter 2, and detailed accounts of this history have been provided by Coovadia et al., (2009), Hartman (2014) and Macdonald (1992). The development of medical education is closely linked to this history. Considerable growth and investment occurred in urban, tertiary care medicine servicing a predominantly white population, at the expense of developing an efficient district-level public health system capable of servicing the needs of the larger (mostly poor and non-white) population (Macdonald, 1992). The prominence of the hospital-based health care model as well as technological advances in many fields of medicine during that time had privileged the biomedical model and led to a tendency amongst health care professionals to specialize and sub-specialize, resulting in a lack of ‘generalist’ doctors willing or equipped to work in under-serviced and poorly-resourced areas (Hartman, 2014). In the transition to democracy in 1994, an equity-driven approach called Primary Health Care (PHC) was adopted as South Africa’s national health policy.

PHC is a global phenomenon across so-called ‘developing countries’. Whereas the patient-centred model guides interpersonal interaction and the delivery of health services in so-called ‘First World’ societies, PHC is the philosophy that drives “a health care system integrated into the development plans and programs of a nation” (Macdonald, 1992:54). PHC has three broad aims: to pursue equity in health care through reallocating health resources, involve patients and communities in health care decisions, and collaborate with other sectors such as housing and education to achieve ‘health for all’ (Macdonald, 1992). Both the patient-centred model and the PHC approach draw explicitly on a biopsychosocial approach to understand the patient’s problem, but a PHC orientation includes a wider consideration of health in terms of family, community and population. Policies were drafted aimed at operationalising a ‘radical reinterpretation” of health care towards redressing injustices of the past. For example,

the 1997 Batho Pele (‘People First’) principles of service delivery emphasize inclusiveness, efficiency and accountability in all public sector institutions, and the Patients’ Rights Charter, published in 2002 by South Africa’s Department of Health, outlines the rights (and responsibilities) of patients in public health facilities (Deumert, 2010:53).

The implementation of PHC includes reforming the health care system as well as shaping the next generation of doctors. In line with government policy, the Faculty where this study is located adopted a Strategic Plan in 1994, in which it committed to ‘equity’ and ‘relevance to Africa’ (Hartman, 2014: 181) in the design and implementation of health sciences curricula. A curriculum blueprint, a framework which “interprets the Strategic Plan to guide the work of curriculum design teams” (2014:53), was adopted and subsequently initiated several cycles of curricular reform, notably between 2002 and 2006.

The revised curriculum exists as a longitudinal spiral. The first three years are horizontally and vertically integrated, and focus on the basic sciences (disciplines such as anatomy and microbiology), clinical skills (such as history-taking, examination and counselling) and non-clinical subjects such as Afrikaans and isiXhosa language courses. Revision of the fourth to sixth year curriculum was not completed; instead of having an integrated, ‘generalist’ exposure to medicine, students still rotate through specialities such as Medicine, Surgery, Paediatrics and others. Longitudinal competencies (such as patient-centred communication skills) are meant to ‘weave’ through different disciplinary courses as so-called ‘golden threads’. Other PHC-related ‘conversations’ related to population health and cultural competency are meant to be incorporated into bedside tutorials and assignments during clinical rotations.

Several years after the adoption of the new PHC-led MBChB curriculum, an in-depth case study done by Hartman (2014) provides extensive evidence that the MBChB curriculum reconstruction was a ‘process of contestation’ which resulted in strong alignment between the Faculty Strategic Plan and the MBChB curriculum in the first three years, but which got progressively weaker and was “virtually absent in the final year” (Hartman, 2014:iii). While there were many factors that contributed to this situation, she concluded that the continued influence of the biomedical model in the health care system inhibited the shift to a PHC approach. Clinician-teachers are predominantly specialists in their disciplines rather than ‘generalists’, and teaching occurs for the most part in tertiary settings that emphasise curative medicine and value biomedical and technical expertise.

Medical students are not unaware of these ideological struggles. In 2012, Draper et al., undertook a study to explore third and fourth year medical students’ perceptions as part of a needs analysis for a ‘simulated patient’ program at this institution. A significant number of

students reported that, to complete their portfolio requirements, they felt that they were ‘pressuring’ patients. One student commented:

I know that it is a teaching hospital but I can't help feeling that we are infringing on patients' rights. This one time our clinician cut our patients visiting hours short so that we could examine him. You could tell that the patient was not yet ready for his visitor to leave, and we were hounding his bed area like hawks. I was shocked and offended because in class we are taught to treat our patient like a human being and yet when we're exposed to the real clinical environment, patients are treated as learning objects with no rights or feelings. Being in hospital constantly makes me feel uncomfortable. There is no honour in treating poor people like they are poor (Draper et al., 2012b).

The study also found that while medical students valued and enjoyed their contact time with patients, they felt uncomfortable with the idea of patients potentially taking a more active tutoring role, and preferred what Bleakly and Bligh (2008) refer to as ‘doctor-led medical education’ with more paternalistic doctor-patient power relations. The study highlights orientations that are neither patient-centred nor PHC-led, since

(h)ow a society selects, classifies, distributes, transmits and evaluates the educational knowledge it considers to be public, reflects both the distribution of power and the principles of social control (Bernstein, 1971:47).

3.3 The PHC philosophy and the teaching of communication

The MBChB Programme’s curriculum blueprint organises graduate outcomes in terms of ‘Attitudes and Values’, ‘Knowledge’ and ‘Skills’. Under ‘Attitudes and Values’, several outcomes are listed that relate to patient-centred communication, including “(t)he need to develop a professional and respectful doctor-patient relationship based on mutual understanding and trust, which includes the recognition of the patient’s right to take part in management decisions” and a “holistic approach to individual patients and their health problem within the context of family and community” (Hartman et al., 2001:5). Outcomes related to ‘Knowledge’ foreground a comprehensive approach to health that includes “(t)he principles of health promotion, disease prevention and management of illness in the context of the individual, the family and society” (Hartman et al., 2001:6). In the ‘Skills’ section, the outcome is rather ambiguously listed as “(c)ommunicate effectively, clearly and courteously” (Hartman et al., 2001:6).

While the blueprint does not provide information on how to operationalise these outcomes, the clinicians who teach in the pre-clinical years draw explicitly on the patient-centred model and use the Calgary-Cambridge Guides as an organising framework for theoretical and role play-based learning. Interestingly, Hartman found that these clinician-teachers saw the ‘patient-centred’ approach as “core to PHC-oriented medical training” (2014:86) even though this emphasis is not reflected in curricula from PHC-led institutions in other developing countries or even in literature on PHC (Hartman, 2014). The CanMEDS way of framing competencies as distinct ‘roles’ means that communication competency has a higher ‘status’ than what it held previously. It is likely that interest in patient-centred communication will increase, especially because the South African CanMEDS “will in future inform all the... accreditation processes” (Van Heerden, 2013:22).

The next section outlines one activity in the MBChB curriculum that operationalises the teaching and learning of patient-centred communication in a health promotion context. The activity foregrounds active participation and decision-making rather than expecting patient compliance to prescribed care, and encourages an attitude of using and valuing patients’ experiences and perspectives as a learning resource.

3.4 Restructuring patient education in Pharmacology

Being able to explain treatment regimens and potential risks or side effects to patients is a core competency in the MBChB curriculum, and for this reason fourth year medical students participate in health promotion activities, such as creating patient information leaflets during their Pharmacology rotation. In 2009, the activity was fundamentally redesigned to align with the New London Group’s (1995) pedagogy of multiliteracies. The student artefacts and reflective notes that serve as primary data in this study was produced during this activity. While the multiliteracies-based approach to creating health education artefacts is comprehensively discussed in *Multimodality and Medicine* (Weiss, 2014), a brief outline is provided here.

Multiliteracies is a pedagogic response to two global phenomena in the contemporary workplace, namely, increasing linguistic diversity and increased emphasis on ‘visual literacy’ as a result of innovations in information technology and multimedia (Cope & Kalantzis, 2000). In South Africa, a multiliteracies approach to health promotion is apt

because, even though there are eleven official languages, most doctors are only able to converse with patients in English (Deumert, 2010). Many patients who access public health care have suffered educational neglect under decades of apartheid and are not well-informed regarding their disease. The idea behind restructuring the Pharmacology activity was to validate the ‘multiplicity of discourses’ that both students and patients bring to the health education encounter, and to make available a shared communication space in which both parties can learn. This approach draws explicitly on diversity in the classroom to accomplish its twin goals: to explore students’ meaning-making by drawing on multiple modes, and to encourage critical engagement and participation during students’ meaning-making, knowing that their different backgrounds and experiences are valued. The conditions for this type of learning are created by conceptualizing meaning-making or the act of representation as a process of motivated, agentive ‘designing’ (Cope & Kalantzis, 2000) in which both the available meaning-making resources and the designer are transformed. This process of transformation is the essence of learning.

During their eight-week Pharmacology rotation, fourth year medical students participate in a workshop on a ‘metalanguage of design’, which involve analysing a local celebrity magazine and medical advertisements. Based on Halliday’s three functions of language (1978), a metalanguage of design allows student to interrogate meaning on an ideational level (what is going on, and who is doing what to whom), on an interpersonal level (the author’s relation to text and reader) and on a textual level (how this type of text constructs meaning in this case). The classroom discussion elicits differing personal and cultural perspectives on issues such as body image, critique on what students see as instances of stereotyping, and discussions on the affordances of available semiotic resources. After the workshop, students are required to interview a hospital or clinic patient, design a personalised health promotion artefact and write a critical reflection on the design process. The artefacts and reflections are assessed using a scoring rubric and counts 10% of their summative mark in Pharmacology. Students are told that their motivations for design choices are weighted and that they would not be penalized if their artefact did not come out the way they intended, if they critiqued the design appropriately. The curriculum activity focuses on different clinical conditions every year, and topics have included contraception (Weiss, 2014), diseases of lifestyle, and rheumatic heart disease.

It is important to remember that this activity is not primarily a health promotion task. Rather, the activity was designed to engage students in reflection on patient-centred communication and patient-centred health education. A patient-centred approach is demonstrated when a student explores what the patient's perspectives, learning preferences and challenges are, selects clinical information that is relevant to the patient, and constructs a personalised health education 'message' in a way that is engaging and empowering. The most important outcome of this task is not the artefact; rather, the artefact and reflection realise students' transformative journey in developing a patient-centred professional identity.

3.5 The politics of social representation: 'stereotype' or 'target audience'?

After interviewing their patients, some students wrote in their reflections that they chose to design an artefact for a 'target audience' rather than a specific individual, because they had identified what they perceived as commonly-occurring patterns of needs and challenges. Jones uses the term 'entextualization' to describe how people become 'target audiences' in health promotion texts through repeated cycles where "social actions and social actors are transformed into social practices and social identities" (2013:29). This process makes these actions and identities more 'solid', that is, more difficult to resist or question. These 'recognisable' identities in the context of health and risk are what students refer to as 'target audiences'.

Doctors use processes of categorisation and pattern recognition during clinical reasoning; it enables clinicians to reduce the volume of information and richness of detail quickly and efficiently until the patient is 'diagnosed' as 'belonging' to a certain group (Barrows & Feltovich, 1987). Of course, even though entextualization (Jones, 2013), categorisation and pattern recognition are legitimate practices in medical discourse, Stone and Moskowitz argue that "all people harbour implicit biases that 'leak' into their judgements and behaviours" (2011:773).

Stereotyping concerns the 'exaggerated beliefs' that people hold regarding a social group (Turner & Turner, 2011). Designers of user-centred interfaces and products such as cell-phones or household appliances rely on conventionalised social actions and identities to construct simplified accounts of people (Stary, 2001). These simplified accounts allow for selective foregrounding of social behaviours or characteristics that are specifically relevant to the product or idea that is being sold. The idea of stereotyping is not intended to denote a

negative connotation when used in this context. To limit the development of what they call ‘non-conscious forms of bias and stereotyping’ in medical students, Stone and Moskowitz recommend that egalitarian goals are foregrounded in the design of curriculum activities. This strategy discourages moral or value judgments and “capitalises on the chronic values and beliefs already present in the majority of health care professionals” (Stone & Moskowitz, 2011:773). Another way in which medical schools try to reduce stereotyping is to train medical students in ‘cultural competence’ (Stone & Moskowitz, 2011).

The student data for this research study were produced during the multiliteracies-based Pharmacology health education activity. It is a rare opportunity for medical students to engage with diversity through reflection. The broad aim of the curriculum activity is to encourage the development of patient-centred, culturally ‘competent’ professional identities. The goal of this study is to explore what students understand as being ‘patient-centred’ at this moment in their professional development. Their written reflections are treated as value-laden documents, the physical manifestation of an ‘inner conversation’, providing a ‘window’ into students’ cultural and social beliefs at that moment. It is essential for to adopt a stance that steers away from value-laden and judgmental concepts such as ‘bias’ and ‘stereotyping’. To tread sensitively and respectfully among students’ offerings, I take a social constructivist position in describing their design choices and motivations as representing their ‘interest’ (Kress, 2005) in response to a ‘prompt’ arising from the social context.

3.6 Rheumatic Heart Disease

Since the redesign and piloting of the Pharmacology activity, the range of clinical topics has been extended to include sexual health and contraception, acne, HIV, asthma, diabetes and other diseases of lifestyle. This study drew on the artefacts that were designed for patients with rheumatic heart disease (RHD). RHD is predominantly a condition affecting the world’s poor. Over the last 100 years, it has been virtually eradicated in the developed world due to improved living conditions, increased access to medical care and the widespread use of penicillin for streptococcal throat infections (Omokhodion, 2006). However, it still affects 15,6 million people from developing countries worldwide and result in 300 000 deaths each year (Omokhodion, 2006; Mayosi et al., 2014). Sub-Saharan Africa is a hotspot, with 5.7 per 1000 children between the ages of 4 and 15 affected in 2005 (Mayosi et al., 2014). Since then, the implementation

of school screening programs using echocardiography in Mozambique, Uganda, Senegal and South Africa has placed this number at 7,5 - 51,6 per 1000 children (Zühlke, Mirabel & Marijon, 2013). RHD is the most frequent cause of heart failure in children and young adults and presents a significant mortality and morbidity risk to pregnant women (Sliwa & Bohm, 2014). It also places an impossible burden on the health care budgets of already-struggling economies, with 2 million patients globally requiring repeated hospital admission and over 1 million requiring heart valve surgery (Omokhodion, 2006).

3.6.1 What is rheumatic heart disease?

Rheumatic heart disease is a term that refers to conditions where the underlying mechanism is damage of heart valves in response to Group A β -haemolytic *Streptococcus pyogenes* bacteria (hereafter referred to as Strep). The most common mechanism of infection in Africa is through contracting a relatively innocuous Strep bacterial throat infection (pharyngitis). Strep pharyngitis is a common occurrence in children between the ages of three and fifteen, and the human immune system is programmed to launch an inflammatory response that kills bacteria. Whether a child goes on to develop RHD depends on their genetic susceptibility, the virulence of the specific strain and a conducive environment (WHO, 2004).

While the exact patho-genetic mechanism is still unclear, it seems that susceptible children's immune response (which is genetically controlled) cause 'unintended' consequences through a process called 'molecular mimicry'. The Strep bacteria in question carries proteins on its surface that has structural similarities with certain cells in the human body, notably the heart valves. Therefore, the inflammation triggered by the bacteria becomes a delayed 'auto-immune' response targeting tissues that exhibit the same surface marker. This is called rheumatic fever (WHO, 2004), and is sometimes abbreviated to 'RF'.

A child with rheumatic fever may exhibit a range of general, self-limiting 'flu-like' complaints (such as joint pains, rash and fever) as well as carditis (inflammation of a heart valve, often detected as a heart murmur). Carditis may resolve or lead to degrees of stenosis (tightness) or incompetence (leaking) of the affected valve. This is called rheumatic heart disease (RHD); depending on the severity and valve involved, this may have a 'knock-on' effect on the structure and function of the heart and other organs, manifesting as complications of RHD (such as heart failure and 'fluid' in the lungs). It is not difficult to see

why RHD is still rampant in poor and rural communities and parts of the world. Crowded living conditions such as found in informal settlements aid the rapid spread of Strep bacteria between hosts. Access to appropriate medical care may be difficult or delayed due to a host of socio-economic factors, including lack of transport, neglect and lack of knowledge on the part of the child's carers and local health care workers (WHO, 2004).

RHD can present in many ways depending on the patient's age, progression of the disease and presence of other comorbidities such as (unrelated) chronic diseases of lifestyle. Children who develop RHD often fail to thrive; they may miss school due to repeated attacks of rheumatic fever and may not be able to run and play normally with friends. Even when it is diagnosed early, the management of rheumatic fever is so odious that children and young patients often abandon their treatment regimens, only to present as adults with RHD-related heart failure. For example, RHD is often diagnosed in pregnancy. A pregnant woman's cardiac output (heart rate and volume) increases gradually to account for the circulatory needs of the developing foetus; with underlying RHD this additional workload can push even previously-asymptomatic women into life-threatening cardiac failure during late pregnancy or labour (WHO, 2004). Some patients only seek help when they are unable to earn a living due to reduced exercise tolerance, for example, not able to walk to a taxi rank or do physical work without frequent rests.

The diseased valves are also vulnerable in other ways. For example, if someone with underlying RHD has a dental procedure such as a simple tooth extraction, bacteria that enters the bloodstream can colonise the damaged valve and cause a serious and potentially deadly systemic infection called infective endocarditis. This could also occur when dirty needles are used for intravenous injections, such as during recreational drug use. Lastly, comorbidities such as diabetes, TB pericarditis and HIV-associated cardiomyopathies may alter the clinical presentation and progression of RHD (WHO, 2004). When one realizes the wide scope of possibilities that a student can encounter, one starts to appreciate some of the challenges in attempting to deliver 'targeted health education'. Conversely, one also starts to understand the need for targeted health education- there simply is no one-size-fits-all health promotion message.

3.6.2 RHD and the health care system

National guidelines for the prevention and management of rheumatic fever and RHD were adopted in South Africa as early as 1997, and RHD became a notifiable disease. However, it was only in 2005 that experts from all over the continent united to respond to the African RHD crisis with a ‘call to arms’:

We are mindful of the fact that the major determinants of RF and RHD are poverty, overcrowding, poor housing and shortage of health care resources. We call on African governments and the world community to accelerate investment in the initiatives designed to improve the living conditions of the world’s poor, which will lead to the permanent eradication of RF/RHD in the long term (Mayosi et al., 2006:246).

Thus, the Drakensberg Declaration was born, with participants undertaking to develop pilot programs at so-called ‘sentinel sites’ to inform the development of policies and programs. Four areas of activity were identified: raising awareness of rheumatic fever and RHD among stakeholders, improving the quality of information through epidemiological surveillance, advocating to change public policy and establishing national primary and secondary prevention programs. These activities have been coordinated by the Pan African Society of Cardiology, the World Heart Federation and the World Health and became known as ASAP (Mayosi et al., 2006). Since then, the program has seen important initiatives and milestones (Zühlke, Mirabel & Marijon, 2013). Developing and standardising criteria for echocardiography in school screening programs has led to earlier detection and will over time reduce the incidence and magnitude of RHD complications. It also confirmed suspicions that the incidence of RHD in certain areas of Africa were vastly underestimated. REMEDY (a Rheumatic Heart Disease Global Registry) was started in 2012, collecting data on patient presentation, follow-up, disease progression and disease-related adverse events. Research towards a vaccine against *Streptococcus pyogenes* is being done, driven by a need for greater understanding of the pathogenesis of RF and genetic susceptibility; unfortunately global efforts focus on strains not prevalent in Africa (Zühlke, Mirabel & Marijon, 2013). For now, it seems that prevention is still the most cost-efficient strategy to deal with RHD in Africa (Mayosi et al., 2006).

The management of rheumatic fever and RHD is outlined in national guidelines and are grouped in three clusters. The mainstay of treatment is the antibiotic penicillin. When a child presents at the clinic with a bacterial sore throat (viruses usually also cause

conjunctivitis and a runny nose) the aim is to treat the pharyngitis with penicillin to minimize the immune system response. This is called primary prophylaxis. A single intramuscular injection of benzathine penicillin is enough, administered in the child's thigh or buttock. Alternatively, oral penicillin for ten days can be prescribed, but injections are preferred because of the risk of not completing the course. However, once a child is diagnosed with having had one or more episodes of RF, the child must receive monthly penicillin injections as secondary prophylaxis. In fact, were it not for logistical factors, a 3-week regimen would be preferred. If the child has no carditis, the injections are given monthly for 5 years or until the age of 18, whichever is longest. If the child has mild valve damage, the injections must be taken for 10 years after the last attack, or until the age of 21, whichever is longest. The third cluster concerns patients with severe valve damage or surgery. In this group, the penicillin regime is lifelong (Zühlke, Mirabel & Marijon, 2013).

While intramuscular penicillin is a painful injection, the drug has few side effects if the patient is not allergic. Penicillin allergy may present with rash and life-threatening swelling of the mouth and tongue requiring urgent intervention, but is fortunately not that common. An oral alternative, erythromycin, is available. However, once a patient develops RHD-related complications, tablets to treat heart failure and other problems are prescribed, and these can have side effects ranging from palpitations to frequent urination. When the patient's symptoms can no longer be managed with drugs, the valve must be surgically repaired or replaced with a prosthetic valve. These patients must take an anti-coagulant ('blood-thinning') drug called warfarin for the rest of their lives, requiring a monthly blood test (INR) to adjust the balance between bleeding and clotting. Warfarin also interacts with many other medications. The sad reality is that while RHD can be prevented by a simple penicillin injection, many patients are only diagnosed at an advanced stage. Penicillin is cheap, whereas

medical and surgical care for people with severe RHD is the least cost-effective intervention and consumes the vast majority of funds available for RHD control in endemic regions (Zühlke, Mirabel & Marijon, 2013:1557).

3.7 A patient-centred approach towards educating RHD patients

Because secondary prevention with penicillin makes sense from a scientific and economic perspective, it is easy to forget or minimize the impact that this treatment

regimen. RHD patients are required to have painful injections month after month, year after year, sometimes while living in difficult socio-economic circumstances. From a patient-centred point of view, it begs the question: what is the patients' perspective on having RHD, and what opportunities are there for health carers to engage constructively with their perspective?

Robertson, Volmink and Mayosi (2005) interviewed caregivers of eight children that had been diagnosed with either rheumatic fever or rheumatic heart disease at a large South African children's hospital between 1998 and 2003. Even though they ensured compliance with the secondary prophylaxis regimen, caregivers had poor recall of the diagnosing physicians' explanations, and had virtually no knowledge or understanding of their children's condition. Similar findings emerged from interviews conducted with Australian Aborigines, who demonstrated a general lack of understanding and for whom "the need for continuing secondary prophylaxis" (Mincham et al., 2003:263) was central to their definition of the disease. Robertson et al.,'s conclusion was that

the inability of patients and guardians to retain the information provided at the time of diagnosis could be attributable to the complexity and sheer volume of information needed to understand the illness. Our study therefore highlights the need for more effective methods for communicating knowledge to patients (Robertson, Volmink & Mayosi, 2005:55).

Aborigine patients also affirmed the important role of health care workers, suggesting that anyone "with an interest in maintaining compliance" (Mincham et al., 2003:265) had a positive impact on patients' adherence to treatment. Although these were both small studies, they demonstrate a systemic indifference regarding patients' understanding and experience of being a RHD patient, and a pervasive health care discourse of 'compliance' that assigns an almost mechanistic and subservient position to RHD patients.

Nutbeam (2000) argues that the value of patient education in general has recently been somewhat overshadowed by two developments in public health. The first is the growing acknowledgement of and attention to the impact of social, economic and environmental 'determinants of health' which has resulted in more 'sophisticated' strategies, such the anti-smoking movement 'enforcing' healthier lifestyles through social stigmatization and high prices of tobacco products. The second development relates to a growing body of research documenting the failure of past health education activities that were based on a simplistic

understanding of the relationship between knowledge and behaviour change. Whether one sees health education as ‘a means to an end’ or “an end-in-itself: something with intrinsic value regardless of other outcomes” (Epstein et al., 2005:1523) depends on one’s ideological orientation. Nutbeam (2000) believes that empowerment starts with patients’ access to health education and their capacity to use it. In other words, health education should have the goal of

improving personal capacity to act independently on knowledge, specifically to improving motivation and self-confidence to act on advice received (2000:265).

This can be done through personal, tailored health communication that addresses the patients’ specific needs, and that acknowledges and facilitates the patients’ capacity for self-help and the support of family members and social communities.

Cuba boasts a success story where multiple strategies were combined in the fight against RHD (Nordet et al., 2008). In 1985, the Pinar del Rio Project was launched in one of the provinces with the highest incidence of rheumatic fever and RHD requiring hospitalization and valve surgery. At a relatively small cost, they rolled out primary and secondary prophylaxis programs, established a register and initiated epidemiological surveillance. They also trained health care workers, communities and patients through educational workshops, posters, pamphlets and programs in the public media. The result was a marked and progressive decrease in the incidence and progression of rheumatic fever and RHD over a period of ten years, with reoccurrence remaining low after another five years (Nordet et al., 2008). Since then many of these measures were implemented in South Africa as part of Africa’s ASAP program. However, apart from the production of a health promotion video aimed at adolescents with rheumatic fever (Ramsey, Watkins & Engel, 2013), little has been done in terms of RHD health education.

There is clearly a need for a type of health education that is useful to RHD patients, and that accounts for the many different clinical stages of RHD. Over the years there have been requests to use some of the students’ artefacts for health promotion in clinics, and the choice of RHD as a Pharmacology topic had raised awareness of RHD among students. However, it is important to remember that this was never the purpose of the Pharmacology activity. The overall aim of the exercise is to empower students as patient-centred, culturally competent carers: to immerse them in a practical and reflective experience so that they may

learn to listen to patients, appreciate their input, understand their challenges and respond to their needs.

3.8 Conclusion

This chapter provides a rich backdrop to the study. It positions the Pharmacology activity (where the student data was produced) on one level as a direct contestation of the dominant ‘biomedical culture’ on the clinical platform, and on another level as a significant moment in students’ journey towards developing patient-centred professional identities. Understanding the scope and complexity of RHD creates an appreciation for how difficult it is to do targeted health education, while at the same time underscoring the urgency and need for it. This appreciation, together with a clear understanding of where and how the data was produced, is essential to understanding students’ practical and reflective work as being (their version of) patient-centred responses to real challenges. In the next chapter, the research design and methodology is explained.

CHAPTER FOUR

Method

4.1 Overview of chapter

This chapter outlines the method that was followed in interrogating the phenomenon of patient-centred communication in this study. It shows how the research is located within a constructivist, interpretivist epistemological paradigm and what challenges may be introduced through this orientation. The chapter argues that a qualitative approach, drawing on multiple sources of data, is ideal for constructing a nuanced view of what is seen by many to be a complex and multi-layered phenomenon (Epstein et al., 2005). The ‘social’ nature of students’ meaning-making is foregrounded in that a multimodal social semiotic approach is taken to analysing students’ personalised health education artefacts. This chapter shows how the study draws on Bezemer and Kress’ social semiotic interpretation of recontextualisation (2008) to create a framework suitable for analysing multimodal texts across three different modes. An argument is made in support of thematic analysis of students’ critical reflections and data from research interviews with the patients. The curriculum activity in which artefacts and reflections were produced was originally designed by the researcher in her role as teacher; this and other ethical aspects related to the study are discussed. Finally, the chapter shows in what ways the research method responds to critique levelled against a social semiotic approach and against existing studies on patient-centred communication.

4.2 Epistemological dilemmas of cross-disciplinary research

Epistemology and methodology are intimately related. Henning, Van Rensburg and Smit suggest that epistemology is a philosophical stance on “how we come to know” (2004:15) while methodology has a practical side: “we come to know by inquiring in certain ways” (2004:15). In the following section, the study’s epistemological orientation is made explicit and brought into conversation with the research method.

4.2.1 Defending the interpretive paradigm

This body of work represents a form of cross-disciplinary research in that, while it is physically located within the setting of a clinical discipline, the theoretical lenses applied

originate from the social sciences. Our epistemological orientations permeate the ways we acquire knowledge and our beliefs; therefore, they not only surface in our research, but affect how we look at, interpret and act on our other social worlds (Henning, Van Rensburg & Smit, 2004). For example, the task of a medical doctor working in a clinical environment is to ‘untangle’ patients’ personal and medical histories to diagnose and ultimately prescribe a course of action. The expectation is that the doctor remains ‘objective’ despite his or her own emotions or thoughts about the situation. In the clinical context, medical discourse, in its search for pattern, cause and effect, assumes a view of knowledge as ‘objective truth’ and that the doctor/enquirer is able to separate ‘facts’ from ‘values’ (Garrick, 1999). This perspective represents a positivist theoretical paradigm, where science and scientific methods are “the way to get to the truth, to understand the world well enough so it can be controlled” (Henning, Van Rensburg & Smit, 2004:17). A key tenet of positivism is “the commitment to neutrality, with reliance on observable events which could be measured or quantified” (Barbour, 2014:36). Post-positivism emerged as an attempt to deal with the limitations of positivism; it argues that an objective, ‘external’ reality can still be discovered within a certain ‘realm of probability’ and assumes that strict distance between the researcher and researched is possible through controlled standards and procedures (Elshafie, 2013).

While the post-positivist striving for ‘probability’ and ‘objectivity’ may be an appropriate departure point for working in a health clinic, understanding doctor-patient communication at a deeper level requires a different epistemological approach. Positivism/post-positivism is widely criticised for a “reductionist attitude towards the nature of human or social interaction” (Henning, Van Rensburg & Smit, 2004:18) and for not accounting for lived experience (Garrick, 1999). This study, on the other hand, explores how medical students grapple with challenges such as cross-cultural communication. In this context, the researcher must start with the assumption that “there is no ultimate objective reality” (Barbour, 2014:35) and that communication behaviours should instead be interpreted through the representation of meanings that students and patients assign to them.

Henning, Van Rensburg and Smit describe this as an interpretivist/constructivist epistemological orientation, where the researcher is “extremely sensitive to the role of context” (2004:20) and the research activity is “a communal process, informed by participating practitioners and scrutinized and/or endorsed by others” (2004:20). This description foregrounds three core assumptions of an interpretive paradigm: firstly, that a

shared understanding of a phenomenon is sought; secondly, that an intimate relationship between the researcher and the phenomenon exists; and thirdly, that the phenomenon being investigated influences and is being influenced by social contexts (Rowlands, 2005). Keeping this definition in mind, an interpretive stance in this study acknowledges that the phenomenon of patient-centred health education is “too complex to define and measure with standard instruments” (Rowlands, 2005:83) and seeks to ‘legitimize’ the participants’ representations of their subjective views. Interpretivism foregrounds

the liberal value of respect for *the person*... A central tenet of this domain is the belief that individuals are not merely passive vehicles in social, political and historical affairs, but have certain inner capabilities which can allow for individual judgments, perceptions and decision-making (autonomy) (Garrick, 1999).

The medical students in the study may have all started out taking a history from their patients using well-rehearsed, standardized methods (or ‘standard instruments’), but the diversity of communication strategies that emerged in their health education artefacts testify to their individual autonomy and agency. In other words, in recognizing that each participant’s lived experience or ‘own story’ is socially and contextually framed, the researcher’s interpretation is “less a matter of individual authenticity and more a matter for deconstruction of the text of the story-teller” (Garrick, 1999:148). Therefore, the researcher seeks a shared understanding (between students, patients and researcher) of how students make meaning within these contexts, to identify the conventions that govern their behaviour and interaction.

4.2.2 Challenges of an interpretive paradigm

Working within an interpretive paradigm presents certain challenges to research, and these issues are addressed in the research design. Firstly, legitimization of subjective multi-faceted individual realities, which can at best be imperfectly grasped, requires interrogation of a variety of relevant data using different processes of observation (Pasick et al., 2009). Secondly, it is important to not only gather data from multiple sources, but also study them together as a whole, rather than as fragmented or independent variables (Garrick, 1999). The third challenge concerns the inseparability of ‘the knower’ and ‘the known’. Drawing on Candy (1991) and other interpretivist theorists, Garrick argues that “inquiry is always value laden and that such values inevitably influence the framing, focusing and conduct of research” (1999:149). In ‘retelling’ participants’ stories with added ‘authority’, framed in the lived experience of an ‘authentic situated community, there is a risk of (unintentionally)

marginalizing the researched community's voice. Garrick refers to this type of researcher as a 'colonizer' of the research subjects, and stresses the pursuit of continued self-understanding (in so far as it is possible) to account for researchers' interest, sociocultural context and agency in studying the phenomena at hand. The fourth challenge concerns the generalisability of results. This study interrogates individual encounters framed within specific health education contexts, and there is a limit to what extent findings can be generalized beyond that setting. However, the aim of an interpretive researcher is to understand the deeper structure of a phenomenon and how it informs and is informed by its social context, and this deep understanding makes it possible to inform theory or practice in other settings (Garrick, 1999).

4.2.3 Patient-centred communication from an interpretive perspective

In arguing the importance of context, Epstein *et al.* (2005) call for research that explore individuals' responsiveness rather than the 'numbers and types' of communication behaviours. The design of this study is in part a response to their call. The study draws on multiple data sources from both students and patients. It uses a qualitative approach to provide a richly descriptive view of how these students respond to their individual patients' needs in the context of social, cultural and language diversity. 'Qualitative' implies an attempt to "describe, decode, translate, and somehow come to terms with the meaning rather than the measurement or frequency of phenomena in the social world" (Rowlands, 2005:81). This means that (what counts as) patient-centred communication within this context may differ from that taught in the classroom (Hancock & Algozzine, 2015). Furthermore, rather than sampling a pre-determined, statistically-relevant number of students, a qualitative exploration of patient-centred communication uses the strategy of purposeful sampling (Creswell, 2009) to assure that both normative aspects as well as areas of tension are captured. In the next section, the study's data sources are discussed in detail.

4.3 Data collection

Pasick et al., argue that "[c]omplex phenomena of sociocultural contexts are best studied using multiple data sources" (2009:16S). Archer (2004), for example, used social semiotics to explore academic literacy practices in engineering students' multimodal texts but drew on interviews and students' notes to understand their meaning-making, acknowledging the risk that social semiotic researchers may 'read values in silent texts'. Even with multiple sources

of data, Epstein et al., (2005) warn that correlation between data sources may be modest, and that the complexity of patient-centred communication should not be underestimated.

Three types of data were selected that provide both multiple perspectives and the social context: the artefacts produced during students' curriculum activity in Pharmacology (described in chapter 3), the accompanying reports that documented students' critical reflection on the design process, and the transcriptions of interviews that the researcher conducted with selected patients. One hundred and sixty text sets, that is, artefact with accompanying reflection, were created by students during the curriculum activity, and an iterative exclusion process was followed to select the most apt and representative texts for analysis. Incomplete sets or where student consent was withheld were excluded. An initial reading of artefacts and reflections excluded sets where students had seemed to engage half-heartedly with the task. While this part of the selection process was not based *per se* on the assessment score that students received, correlation between marks and effort or engagement was evident. Examples of poor engagement included evidence of incomplete history-taking and bland, generic or simplistic artefacts.

A second, more detailed reading looked for recurring themes or interesting areas of tension as well as patient contact details. Seventy data sets (representing twenty-seven patients) were selected, representing a range of genres (pamphlets, booklets, calendars, board games and household objects). Of these, ten patients consented to be interviewed; some had died, others lived too far away or couldn't be traced. The ten interviewed patients represented diverse age groups, ethnic origins and socio-economic settings. One interview was excluded as the patient may have been under the influence of alcohol. Twenty-five data sets were included, since each patient had been seen by more than one student. While all were analysed in detail, not all could be included in this thesis, and examples where students had to grapple with challenges such as patients' language difficulties, resistance to adherence or low levels of literacy were prioritised. The following section explains in more detail why each type of text was viewed as credible data.

4.3.1 Artefacts as data

In this study, the concept of 'text' refers to a piece of work with a linguistic structure (Dole, Donaldson & Donaldson, 2014). The dominance of language in its spoken and written forms

has been challenged by modern communication theories and technological advances, with meanings being made (as well as distributed, interpreted, and remade) through many representational and communicational resources (Jewitt, 2008). The result is the emergence of ‘new configurations’ and ‘types of text’ such as mobile phone apps (Lupton, 2014) as well as a foregrounding of materiality, such as including a description of the paper in interpreting historical poems (Wells, 2004). This foregrounding of material context may explain why both Wells and Lupton describe their texts (respectively, poems and apps) as socio-cultural artefacts.

In line with this approach, I use the term ‘text’ as an inclusive category referring to ‘instances of meaning-making’. Kress (2010) highlights two defining acts involved in making a text: that of representation, or giving material realization to one’s meanings, and that of communication: the intention of making one’s meanings known to an assumed audience. In this study the artefacts are a type of text designed by medical students after they interviewed RHD patients. Following Kress’ argument, the making of the artefact represents an act of recontextualizing the topic of RHD for a different type of audience, and an opportunity for responding or demonstrating ‘informed flexibility’ to a perceived need for information.

Patient education forms an essential component of the patient-centred consultation (Larivaara, Kiuttu & Taanila, 2001). Artefacts are considered patient-centred to the extent that they

meet patients’ needs, are written in a way that patients can understand, and enhance patients’ understanding and ability to participate in medical care (Saha, Beach & Cooper, 2008:1277).

Designing a personalized health education artefact in some ways emulates a ‘live’ patient encounter, such as having limited ‘contact time’ (represented in an artefact through the physical properties of space) and having to deal with challenges such as the patient’s limited grasp of the English language. Artefacts are preferred over live encounters in this research study because of their affordances. Firstly, the student has had more time to reflect on and construct the most apt way of ‘responding’ to their patient’s need after the interview, compared to an immediate response during a live consultation. Therefore, the artefact as response is more likely to represent the outcome of a reflective process.

Secondly, the multimodal potentials of physical texts afford possibilities for communication that go beyond that of spoken conversation even while the physical properties of the artefact itself constrain what and how much can be 'said'. Multimodal artefacts present alternative avenues for students to 'get their message across' when patients cannot communicate in English or are not interested in traditional health education methods. Calendars, games and even a 'speaking book' provide rich information on students' ideas on patient-centred communication that would otherwise not have been available or visible.

Thirdly, artefacts are preferred over video footage of live encounters, as having to 'perform' in front of a camera may leave both students and patients feeling uncomfortable, vulnerable and therefore less likely to focus on the task at hand. Viewing artefacts as instantiations of communication also avoids ethical and logistical challenges of video-recording student-patient encounters.

4.3.2 Critical reflections as text data

Every artefact is accompanied by a reflection document which describes and motivates, for example, the choice of text type or participants used in the artefact. In the curriculum activity, this requirement was at first aimed at discouraging students from overreliance on aesthetic or novelty value. For the students who were unable to achieve their desired design because of technical or other limitations, the reflections provide an opportunity to explain what they had tried to achieve regardless of the result. However, the value of the reflections for a researcher is that they serve as evidence on how messages are being interpreted. Fairclough argues that

(i) it is very difficult to be precise about the processes involved in meaning-making for the obvious reason that they are mainly going on in people's heads, and there are no direct ways of accessing them (2003:11).

The critical reflection is a complex text, where students plan and construct an intricate argument in support of their design. Core to the student's decision-making process is taking a thorough history from the patient that aims firstly to understand the impact of the disease at a biomedical, psychological and social level, and secondly to discover what the patient thinks, feels and fears about their disease. The student has to design the artefact based on this history; the critical reflection 'maps' or documents the student's rationale for certain choices. The critical reflection therefore represents another source of information: that of the

student's represented 'inner conversation' on the topic and the process of 'clinical reasoning'. In transitioning between 'inner' and 'outer' speech,

Bakhtin fundamentally rethinks both the relation of consciousness to the world around it and the relation of the self to others. We read that a poet's style "is engendered from the style of his inner speech, which does not lend itself to control, and his inner speech is itself the product of his entire social life" (Emerson, 1983:249).

Consciousness and 'inner speech' relates to social interaction with the world and with others, and students' critical reflections can be seen to contain traces of the discourses, social experiences and values that they draw on in more or less conscious ways.

Students' reflective text may also be viewed as a 'double lens'. During 'history-taking', patients had recounted their version (of their lived experience as patients with rheumatic heart disease), but it is the student who decides (consciously or not) what, how and how much of the patient's story is represented. The act of 'taking a history' enacts implicit power relations that may or may not produce different versions of reality. As much as the student may attempt to adopt an 'objective' professional stance, the process of questioning, listening and interpreting is always a process of redesigning (Cope & Kalantzis, 2000) whereby the patient's story is transformed in some way. Kress (2005) uses the term 'interest' to describe this process of selecting features that are 'critical' to the sign-maker in a social context. The critical reflections documents where a student's interest is directed and how it was realised through sign-making, and the reflection contain facts, assumptions, omissions and rationalizations. By looking at the students' reasons for what is included and what is left out, and keeping in mind that the task is about empowering patients through health education, the reflections provide insight into how students view patients in a social context and how they construct power and knowledge relationships between doctor and patient. In other words, it is not only the patient's story that is being transformed, but also the student and the student's 'inner speech' (Cope & Kalantzis, 2000). Thus, the critical reflections also provide insight into the emerging professional identities of students as future 'patient-centred' doctors.

4.3.3 Patient interviews as text data

Epstein (2006) suggests that communication research should also seek to understand what patients notice, want and need in different contexts, and should explore in what ways patients' perspectives of patient-centredness may differ from views held by doctors and

researchers. Exploring the patients' perspectives allows for a greater understanding of context, for example, how the severity and type of their illness, or their family relations affect their communication needs and preferences, and especially how communication is facilitated or impeded within the health system. Therefore, the patients' perspective forms the third source of data. Semi-structured interviews were conducted with ten patients.

An interview may be described as “a special kind of knowledge-producing conversation” (Hesse-Biber & Leavy, 2006:128) where the interviewer uses pre-designed questions as a semi-structured guide to elicit the interviewee's story and perspective. The emphasis is on allowing the participant to provide opinions or share narratives, with the interview guide serving as a memory aide to ensure that the objectives of the interview are met (Hennink, Hutter & Bailey, 2011). Contradictions and inconsistencies are explored through active listening and “the art of second questions” (Kvale, 2007:63).

Interviews were audio-recorded and transcribed by a professional transcriber. Logistical and ethical constraints precluded the use of video-recording as some interviews took place at the Cardiac clinic where patients go for routine check-ups. An audio-recorder is not as obtrusive as a video camera and since patients are used to being interviewed by clinical personnel, this method of data collection is a less intrusive way of eliciting responses. However, some aspects of the interview (gaze, actions and facial expressions) could not be captured by audio-recording. For this reason, the transcripts were supplemented by notes taken by the researcher during the interviews. A multilingual nursing sister who works in the clinic provided not only additional language support where needed (especially in isiXhosa, which is the home language of many of the patients) but also a second set of observer notes (Creswell, 2009). These observer notes were especially important to identify and clarify certain cultural aspects of communication, for example, some women initially avoided making eye contact. This is called '*hlonipha*', “a way of showing respect through verbal and non-verbal avoidance” (Grainger, Mills & Sibanda, 2010:2162) during interaction with someone considered to have higher social status.

Apart from traditional questioning techniques (such as introductory, follow-up, probing or interpretation questions), certain artefacts were used to stimulate discussion. These stimulus texts included those artefacts that were specifically made for that patient, as well as others that afforded a specific focus. For example, a Speaking Book that was created to have audio

clips in isiXhosa was used in all the interviews to get patients' perspectives on language as a barrier to communication. Törrönen describes the use of objects in interviews as "cultural products made up of signs and signification systems" (2002:344) that discursively represent the phenomenon under study. The students' artefacts acted as stimulus in different ways. They seemed to encourage a more natural conversation flow with reticent patients, helping patients to understand the context of the interview and providing "a viewpoint against which they can compare their own viewpoints" (Vincent & Stacey, 2013:318). Artefacts also provided opportunities where patients challenged certain assumption, for example on notions of empowerment. As such, they helped to give 'voice' to patients' perspectives by disrupting the normal power flows of an interview (Bahn & Barratt-Pugh, 2013). The artefacts were not 'evaluated' by patients, but helped to elucidate the patients' perspectives on issues that may otherwise have been difficult.

This section has explained in detail how an integrated reading of different data sources provides both multiple viewpoints as well as the social context. The artefacts serve as instances of health education, and data from students' reflections and patient interviews provide a deep and nuanced reading in making sense of their choices. In the following section, I explain the approach to data analysis.

4.4 Data analysis

Students' multimodal artefacts serve as primary data. Their reflections and the interviews with patients "supplement, contextualise, enhance or nuance" (Archer, 2004:65) their design choices. This method of data analysis affords opportunities for moving beyond semiotic descriptions of artefacts to describing the students' 'interest' (Kress, 2005).

4.4.1 Analysis of student artefacts

The students' artefacts are analysed using a multimodal social semiotic approach. Bezemer and Kress (2008) analysed educational learning resources by drawing on Bernstein's 'pedagogic device', a set of principles that govern the recontextualisation of intellectual knowledge into pedagogic communication (Bernstein, 2000). Bernstein saw the pedagogic discourse as the embedding of two related dimensions, namely a discourse of 'competence' (the epistemic dimension) and a discourse of 'social order' (the relational dimension). Bezemer and Kress (2008) interpreted pedagogic communication in terms of social semiotic

principles, namely, the selection of content and representational means, the organisation of text, and the social repositioning of participants. These semiotic principles of recontextualisation form the basis of the analytic approach to artefacts, and in the next section a broad overview of each principle is given.

Bezemer and Kress' first principle concerns the selection of content and representation, and relates to students' epistemic choices. In patient-centred health education, the selection of content is aimed at constructing a shared understanding of the problem, which incorporates both medical 'facts' and the patient's perspectives. 'Representation' refers to the way meaning is realised through the choice of semiotic resources, for example, to what extent students draw more on their own or on their patients' experience of the world. Kress and Van Leeuwen (2006) distinguish between 'narrative' and 'conceptual' representations. In narratives, participants are involved in transactional relations. In systemic-functional terms, an 'Actor' (such as a drug) is transacting with or reacting to a 'Goal' (such as a patient). A narrative process describes the world as having a beginning and an end, it offers "a sequential progression and is goal orientated" (Kress & Van Leeuwen, 2006:84). Conceptual representation, on the other hand, realises information in terms of class, structure or meaning, with each affording different potentials for meaning-making (Jewitt & Oyama, 2001). In classificational structures, participants relate to each other as 'Subordinate and 'Superordinate' in some form of hierarchical 'taxonomy', for example, classifying penicillin prophylaxis in terms of different disease stages. In analytical structures, participants have the role of 'Carrier' and 'Attribute', and the analysis concerns relating 'parts' in terms of the 'whole', for example, a certain combination of signs and symptoms are needed to diagnose 'rheumatic fever'. Symbolic structures imbue symbolic meaning or a certain mood or atmosphere (Kress & Van Leeuwen, 2006:105), for example, representing death as 'the end of the road'.

The second principle underpinning students' epistemic choices concerns how they organise information so that their messages 'make sense'. Organisational resources help to establish 'internal' coherence, which is necessary for interpreting the designer's intended meaning, as well as 'external' coherence, which help to identify the text as a being a specific 'type' of text. Decisions are needed on how to arrange information through connecting some aspects and disconnecting others (Kress & Van Leeuwen, 2006), as well as on what order the reader should engage with the content (directionality). Decisions are also needed on how to assign

salience to certain aspects that are considered criterial (Kress, 2005). Salience markers such as the size of an image or the loudness of a spoken word signal that “status is accorded to those elements regarded as particularly significant” (Bezemer & Kress, 2008:185).

The third principle concerns the social repositioning of participants (Bezemer & Kress, 2008), which is realised as ‘modality’. ‘Modality’ is a “system of social deixis” (Kress & Van Leeuwen, 2006:172), relating the credibility of the sign-maker to expectations about the audience. It realises the speaker’s ‘illocutionary force’ in relation to a statement and within a specific social context (Kress & Van Leeuwen, 2006). Modality has an interpersonal function (Halliday, 1978) because expressing a truth or falsehood inevitably aligns with the beliefs of some readers while distancing others. Stating a proposition requires a consideration of one’s audience, and “serves to create an imaginary ‘we’” (Kress & Van Leeuwen, 2006:155). The concept of modality can also be understood by drawing on Hyland’s model of intersubjective positioning (2005). Even though Hyland’s work is associated with academic writing, it provides a useful framework for exploring students’ texts in terms of ‘authorial stance’ and ‘social engagement’. As in academic writing, medical students draw strongly on discipline-specific professional discourses to signal ‘credibility’ among their peers. The ways in which they encode credibility on a topic, even when communicating with patients, “responds to a larger discourse already in progress” (Hyland & Jiang, 2016:255). Both stance and engagement are discursively grounded and at the same time contribute to discursive practices in some way.

‘Authorial stance’ encodes “the ways that writers intrude to stamp their personal authority onto their arguments or step back and disguise their involvement (Hyland, 2005:176). It is realised through markers of ‘evidentiality’ and ‘authorial presence’. ‘Evidentiality’ expresses the author’s epistemic perspective as ‘hedges’ and ‘boosters’. Hedging signals low modality, plausibility rather than undisputed fact, which is a useful risk management strategy as it makes provision for unpredictability and variation. Hedges also invite ‘ratification’ from readers, drawing them into a ‘discussion’ where their voices ‘count’. Boosters, on the other hand, signal high modality and conviction, shutting down other voices in the face of the author’s certainty. Signalling ‘authorial presence’ by inserting the ‘voice’ of the author as expert is another way of claiming credibility. In this research project, the range of resources for constructing evidentiality and authorial presence is expanded beyond writing to include the modes of layout and image.

What is considered true and real differs across audiences, since “reality is in the eye of the beholder” (Kress & Van Leeuwen, 2006:158). Kress and Van Leeuwen (2006) use the term ‘coding orientation’ to refer to people’s different ‘reality principles’. A diagram, for example, signals high modality in academic and scientific contexts because an ‘abstract’ coding orientation is valued, where the concrete is reduced to its essential qualities. In a naturalistic orientation, which people revert to “when they are ‘just being themselves’” (Kress & Van Leeuwen, 2006:166), a photograph may signal high modality. The idea of the ‘eye of the beholder’ serves as a reminder that modality has a second dimension: that of the author’s relationship with the audience. Hyland refers to this as ‘engagement’, “an alignment dimension” (2005:176), where writers acknowledge and connect to others and pull them in as participants. In a patient-centred communication encounter, engagement refers to the relation or degree of interpersonal ‘bonding’ between student and patient, and the degree of responsibility and participation that is expected from patients. In analysing artefacts, the interpersonal bond is realised in terms of ‘social distance’ and the patient’s participation in terms of ‘offer’ and ‘demand’ constructs (Kress & Van Leeuwen, 2006).

Bezemer and Kress’ (2008) semiotic principles provide the broad framework for analysis. From a recontextualisation perspective, each principle is concerned with either epistemic choices or relational choices. From a semiotic perspective, each principle may be further explored in ‘sub-categories’. This approach is graphically represented in Table 1.

Table 4.1: Overview of analytic approach to artefacts

RECONTEXTUALISATION CATEGORY	SEMIOTIC CATEGORY	SEMIOTIC SUB-CATEGORY
Epistemic choices: knowledge information content and delivery	Information selection and representation	conceptual/ narrative forms
	Information organisation	Arrangement
		Directionality
Relational choices: Social order learning context	Modality in terms of authorial stance	Evidentiality
		Authorial presence
	Modality in terms of social engagement	Relations as social distance
		Participation as offer/demand

Based on an initial reading across all the artefacts, the modes of lay-out, writing and image emerge as most dominant. These three modes are not treated as equally important in every artefact; rather, different aspects of meaning-making are realized using resources which are most apt. Similarly, some modal resources appear to be more frequently used in students' designs. This analytic framework seeks to represent the students' interest and choices, rather than every modal resource available in a theoretic systems network of grammar, and for this reason some categories in the framework offer fewer modal resources for analysis than others.

In the next section, the analytical approach provided in Table 1 is expanded across the modes of layout, writing, and image for each semiotic category and sub-category. It is important to keep in mind that the analytic categories are artificial distinctions. Modes and modal resources are not equally distributed across categories and some resources do more than one type of semiotic work. Artificial categories tend to 'leak'. For example, 'selection of content/representation' and 'organisation' are presented as two separate semiotic categories for analysis, even though RHD information in a certain form (such as a narrative) may realise both representational (ideational) meaning and organisational (textual) meaning. A detailed description is presented of the semiotic realisations across different modes, and the analytic framework is graphically represented in Table 2 on the next page.

Table 4.2: Semiotic framework for analysis across layout, writing and image

	SEMIOTIC SUB-CATEGORY	RESOURCES OF LAYOUT	RESOURCES OF WRITING	RESOURCES OF IMAGE
Selection/ representation	Selection of content and conceptual/ narrative structures	Genre e.g. calendar	Type of wording and syntax, metaphor	Type of image, content of image, visual metaphor
Information organisation	Arrangement	<ul style="list-style-type: none"> •Framing devices e.g. borders, turn-taking •Spatial/temporal arrangement 	Linear/dialogic arrangement	Connect/disconnect through borders, colour, lines
	Directionality	Directionality e.g. vectors, numbering	Framing for reading path/skip-reading e.g. heading, paragraph, list	Vectors e.g. gaze, arrows, connecting lines
	Saliency	Framing with lines, colour, space	<ul style="list-style-type: none"> •Lexico-grammatical (e.g. theme, repetition, punctuation) •Graphic saliency (e.g. colour, font type/ size, underlining, capital letters) 	Saliency through framing and relation to other modes, size, repetition, colour/contrast, annotation
Modality as authorial stance	Evidentiality	Framing through degrees of choice or control	Lexico-grammatical boosters and hedges (e.g. wording, present tense, conversation/ emphatic style, citing)	Modality related to type/ content of image, e.g. institutional identifiers
	Authorial presence	Conventionalised 'medical' genres	Self-mention e.g. personal pronouns 'I' and 'my'	Images of authorial presence, e.g. white coat figure
Modality as social engagement	Relations as social distance	Social distance through genre (e.g. personal item, public text, institutional text), empty space	Distance: Informal (e.g. 1 st , 2 nd , 3 rd person, writing style), public (formal respectful style), impersonal (institutional tone)	<ul style="list-style-type: none"> •Social distance through close-up/medium/long views •Type and content of image e.g. photo/ diagram, body parts
	Participation as offer/demand	Offer and demand as degrees of interactivity: <ul style="list-style-type: none"> •Display /non-essential participation •Open/turn page to see •Participate/play to learn 	<ul style="list-style-type: none"> •Offering information •Demand: directives such as auxiliary verbs 	Offer/demand through type and content of images, visual elements e.g. gaze

4.4.1.1 Selecting and representing RHD information

The artefacts do not share a generalized ‘target audience’, and the information selected in each artefact was chosen for a specific patient. Patients include children, teenagers, adults and the elderly, and require information on different topics, ranging from prevention or treatment of sore throat to heart valve disease or other complications. What is selected as being ‘meaningful’ knowledge is an important clue as to what students see as ‘empowering’ and to what extent they have a holistic view of the patient and the problem. Drawing on the work of Kress and Van Leeuwen (2006), Jewitt and Oyama (2001), Huang (2015) and others, the ideational world is represented either in narrative or conceptual ways. These realisations are explored in the modes of layout, writing and image.

a. Representing information in layout

In the mode of layout, representation is dependent on the choice of genre. Embedding health information in a ‘snakes and ladders’ board game, for example, presents a narrative of “unfolding actions and events, processes of change, transitory spatial arrangements” (Kress & Van Leeuwen, 2006:59). Presenting information in the form of a medication ‘package insert’ allows for a conceptual understanding of drugs and their effects “in terms of their generalized and more or less stable and timeless essence” (Kress & Van Leeuwen, 2006:59).

b. Representing information in writing

Participants and processes are made visible on a lexico-grammatical level through choice of wording, syntax and metaphor. Wording refers to the multiple ways in which one can ‘word’ a meaning to realize different perspectives (Fairclough, 1992). A ‘sore throat’ draws on the readers’ understanding of a commonly-occurring, familiar event, whereas a term like ‘pharyngitis’ is more ‘technical’. A clause refers to the smallest syntactic part of a sentence and realises material processes and relations between represented participants. Wording and clause may be used to construct either narrative or conceptual patterns. Metaphor is defined as conceptualising

abstract ideas in terms of concrete experiences... that pertain directly to the body (sense perception, motor activity, physical pain and pleasure, heat and cold, etc) (Bounegru & Forceville, 2011:209).

This means that an unfamiliar or abstract topic is presented by comparing it with a ‘source’ with which the target audience is familiar, either through its connection with the text around it, or through connections with the audience’s sociocultural understanding or experience.

For example, antibodies that target specific proteins (that are found on certain bacteria as well as on the surface of human heart valves) may be likened to ‘soldiers’ who ‘attack’ the valves ‘by mistake’. Metaphor is often used in narrative and plays an important role in students’ written texts because of its ability to “represent the unknown, unresolved or problematic in terms of something more familiar and more easily imaginable” (El Refaie, 2003:84).

c. Representing information in image

Images can realise both narrative and conceptual representations of the topic through the type of images being used, the content of images and using image as visual metaphors. Visual representational patterns are mediated through discourse, for example, a medical discourse is realised through a diagram (image type) or through heart valves (image content). Psychological or social aspects of the disease can be represented by more naturalistic images of people or families in photographs.

Images may also contain “elements that invite or force the viewer-reader to construe a metaphor” (Bounegru & Forceville, 2011:224). These metaphors often contain writing, but it is considered a visual or ‘pictorial’ metaphor if it still allows for identifying the topic and source after erasing all verbal elements from the image, even though the verbal elements may contribute to or expand the metaphor. Both verbal and visual metaphors rely on socially-recognized metonyms, for example, in images, amoeba-like shapes with nasty facial expressions are metonymically recognized as ‘germs’ and in speech or writing the word ‘germ’ is understood as referring to infective organisms. Metonymy (when a word or phrase is used to stand in for another word or concept that it is intimately associated with) and metaphors can be described by referring to Kress’ concept of criteriality (2005). We recognize some aspect of a complex sign as criterial to its interpretation, where for example, the camouflage clothing on a figure denotes ‘soldier’ and by extension, war or fighting. However, it is essential to foreground the socio-cultural context of ‘reading metaphors’. For instance, a ‘knobkierie’ (a wooden stick with a knob at one end) signals defence and authority (rather than aggression) in cultures where this object is culturally recognized as a ‘traditional weapon’.

4.4.1.2 Organising information

To explore meaning-making through organisational principles, this study draws on three semiotic sub-categories: arrangement, directionality and salience (Bezemer & Kress, 2008). Decisions on ‘what goes where’ involves the use of framing devices (Kress & Van Leeuwen, 2006) and indicating a preferred reading path across frames. Salience markers construct what is foregrounded and backgrounded as more or less significant. Health education messages that are organised in ambiguous or inconsistent ways leave the patient to do the work of ‘creating coherence’ and patients must rely on social and contextual frames (for example, their own experiences) to confer meaning.

a. Organisation through layout

In spatially arranged texts (such as booklets, puzzles or posters) all the parts of a text are present at the same time; framing devices include borders, empty space and grids (such as with puzzles), and the reading path may be indicated through numbering, lines and arrows (vectors). Framing also determines salience in layout; a ‘chunk’ of information is afforded more attention when it is surrounded by borders or even ‘open space’ than if it competes with other homogenous chunks in a more cluttered lay-out. Other sorts of ‘borders’ including colour perform the same semiotic work. In temporal arrangements, information is gradually released over time (Kress & Van Leeuwen, 2006) and framing and directionality are determined through the rhythm of speech or through physical action (such as throwing dice or turn-taking).

b. Organisation through writing

The ‘logic of speech’ confers a certain linear arrangement and directionality to a written text, it has to be read “from left to right and from top to bottom, line by line” (Kress & Van Leeuwen, 2006:204). Writing can also be framed and spatially ordered as a dialogic arrangement. Headings, paragraphs and lists affords the possibility for information “to be scanned, skip-read, ‘used’ rather than read” (Kress & Van Leeuwen, 2006:205), or a preferred reading path may be suggested through numbering or foregrounding certain elements. At lexico-grammatical level, salience is indicated by repetition of words, consistent use of a ‘theme’ (the initial part of the clause that signifies informational prominence) and punctuation, such as exclamation marks (Fairclough, 1992). Graphic resources such as underlining, capital letters and the size, bold and font colour may also foreground certain concepts and indicate directionality (Kress & Van Leeuwen, 2006).

c. Organisation through image

Framing devices such as borders or empty space may separate and ‘disconnect’ images from their surrounding context, or signal elements across or within images as ‘belonging together’, either through repetition of certain elements or through vectors. Vectors are ‘lines of sight’ formed by gaze, colour or actual lines within or across images (Kress & Van Leeuwen, 2006). As images do not have a conventional ‘starting point’, vectors also determine directionality, for example, the direction of gaze in photographs or arrows in diagrams. Vectors are important for constructing narrative meaning in images, for example, an arrow placed between ‘sore throat’ and ‘diseased heart’ signals ‘disease progression’. Saliency is inferred through an image’s framing and size, which may signal a “hierarchy of importance among the elements of spatially integrated texts” (Kress & Van Leeuwen, 2006:202). Similarly, colour may foreground ‘what is seen first’, for example, in positioning a participant against a softer background. Repetition of (aspects of) image content may suggest a particularly salient theme. Annotation of images is both an issue of representation (signalling the image as being ‘scientific’) as well as of pedagogy (the ‘naming’ of a structure confers saliency in that setting).

4.4.1.3 Modality as ‘Authorial Stance’

The concept of modality brings ‘authorial stance’ into conversation with ‘audience engagement’. Authorial stance relates to students’ credibility, and is realised in their texts as instantiations of evidentiality and authorial presence (Hyland, 2005). Evidentiality expresses the student’s epistemic perspective on the topic through hedges and boosters. Authorial presence refers to instances where the student’s voice as medical expert is inserted to lend credibility. However, “modality judgements are social, dependent on what is considered real (or true, or sacred) in the social group for which the representation is primarily intended” (Kress & Van Leeuwen, 2006:156). Avoiding explicit ‘self-mention’ may be a strategic rhetorical choice in situations where a medical discourse is contested, as

outside of the ‘medical space’, alternative discourses may contribute to constructing particular sources of knowledge as legitimate or authoritative for the patient (Dray & Papen, 2004:315).

Students may choose to avoid authorial presence to slip into the role of fellow ‘outsider’ (thereby distancing themselves from medical profession) by appropriating another identity

or ‘voice’, as a ‘concerned friend’, for example, or an ‘informed journalist’. The voice of a friend would require and allow for more intimacy, extending what can be said into the private lifeworlds of patients; a journalist represents a public, more distanced figure who has a ‘sacred professional duty’ to inform readers and keep those in authority accountable. Because students’ stance in interaction with their patients is important in enacting their professional identity as doctors, it is given prominence in analysis of their texts.

a. Stance in layout

In layout, evidentiality can be signalled in the degrees of choice and control that the text type makes available to the audience. For example, using gaming genres such as snakes-and-ladders can force a player to ‘lose ground’ when landing on a square representing ‘you missed a clinic appointment’. This type of control constructs high modality. Authorial presence in layout is achieved through conventionalised medical genres that signal credibility to this audience, for example, a medical consultation’s question-and-answer format. Where ‘other voices’ are deemed more credible, the student may appropriate another authorial identity and credible genre, for example, that of a journalist in a ‘factual’ newspaper article.

b. Stance in writing

Evidentiality is expressed through lexico-grammatical resources through ‘hedges’ and ‘boosters’. Hedging is realised in words like ‘possible’, ‘may’, and ‘suggest’ as opposed to words like ‘definitely’, ‘clearly’ and ‘obviously’ and auxiliary verbs like ‘must’ and ‘should’ that are markers of certainty and high modality. The simple present tense suggests ‘telling it the way it is’ and using a more conversational or more emphatic writing style communicates different degrees of investment from the author in the discussion at hand. Citing other ‘experts’ such as the Heart Foundation or research studies may also add weight to the author’s proposal. Personal pronouns and possessive adjectives such as ‘I’ and ‘my’ signal authorial presence.

c. Stance in image

The concept of ‘coding orientation’ refers to principles that guide ‘what counts as real’ to different types of audiences (Kress & Van Leeuwen, 2006). A colour photograph of a sick child or diseased valve may have higher modality from a patient’s point of view because it represents ‘experiential’ knowledge. Identifiers of institutions or professional bodies (such as a logo) may signal credibility, but only to the extent to which the sign is recognized or

valued by the patient. Finally, images that infer the student's authorial presence, for example of a stethoscope or figure in a white coat may construct high modality.

4.4.1.4 Modality as Engagement: social relations and participation

Students' interactive engagement with patients can be viewed as "an alignment dimension" (Hyland, 2005:176), where they acknowledge and connect to their patients and pull them in as 'participants'. The student's engagement with the patient is realised through repositioning participants (doctors, patients, families and significant others) at social distances and realising certain 'expectations of participation'.

i. Relations realised as 'social distance'

The social distance encoded in texts make different types of relations available. Social relations "determine the distance (literally and figuratively) we keep from one another... we carry with us a set of invisible boundaries beyond which we allow only certain kinds of people to come" (Kress & Van Leeuwen, 2006:124). How students construct social positions and assign responsibility in health care is dependent on their understanding of societal structures; their choices provide insight into what they see as 'empowering social contexts'.

a. Social distance in layout

The layout associated with a genre may signal social solidarity or distance. A recipe book or gift box realise a degree of intimacy, a letter or 'question-and-answer' leaflet constructs a social or public relationship, and a generic, institutional pamphlet signals an impersonal distance. Social distance may also be seen in layout when spacing is used to realize an ideology of 'simplicity in display'; that is, "providing less information is seen as apt for those regarded to have a lesser capacity to process information" (Bezemer & Kress, 2008:190).

b. Social distance in writing

Three types of relations are available. A 'personal' distance is constructed through the first person perspective, addressing the reader as 'you' or the collective 'we', and a writing style that is more conversational and informal "like spoken language" (Trimbur, 2013:46). Colloquialism refers to instances where the writer was influenced by the way that people speak in that society; it connects the author with a group through the realism of local vernacular. A 'social' distance seeks to establish a more business-like relationship with

readers “based on shared interests and the mutual respect of reasonable persons exchanging views” (Trimbur, 2013:46) and is expressed through the relatively formal, polite style of writing found in non-fiction writing and professional communications. An impersonal or public distance is realised in ‘official’ writing that have an institutional or collective tone.

c. Social distance in image

Like writing, images can realise different types of imaginary relations, portraying people “as though they are friends, or as though they are strangers” (Kress & Van Leeuwen, 2006:126). A close-up view (where we see only head and shoulders or less) suggests intimacy and allows “for conversations of a more personal nature” (Björkval, 2011:249). A medium view portrays people from the waist up, and is the distance at which “impersonal business occurs” (Kress & Van Leeuwen, 2006:124). A long view shows a figure with space around it, or several people together at a distance which objectifies them or positions and maintains them as strangers. In images that do not contain people, the type and content of the image create different potentials for social distancing, for example, a photograph can be more intimate whereas an abstract diagram is more impersonal.

ii. Participation realised as ‘offer’ or ‘demand’

Social relations may also be explored through the notions of ‘offer’ and ‘demand’. These concepts “suggest different relationships with different ‘others’, to make viewers engage with some and remain detached from others” (Kress & Van Leeuwen, 2006:120). They also realise expectations of participation: ‘having to know something’ or ‘having to do something’. Kress and Van Leeuwen explain ‘offer and ‘demand’ in relation to Halliday’s (1978) descriptions of the ‘speech act’. An ‘offer’ of information or services realise an ‘invitation’ to which the audience may react by agreeing or disagreeing. Information or services that are ‘demanded’ constitute some form of ‘command’, and construct a firm expectation of an answer or of participation. This constructs patients, families and communities as more active or more passive.

a. Participation in layout

Expectations of participation are realised in the degrees of interactivity encoded in the artefact’s genre. Interactivity refers to “the learner’s engagement with and transformation or transduction of the text” (Bezemer & Kress, 2008:186). Each level positions the patient as more passive or more active. At the most passive level, the message is ‘offered’ on a

‘displayed object’ that can be seen or read, such as a wall calendar or flower box. The patient may be ‘invited’ to participate by colouring in or filling in data such as clinic visits on a calendar, but their participation is not essential. The second level indicates greater expectations of participation since the message must be ‘accessed’; that is, the artefact must be unfolded or opened or a page must be turned. Interactive designs at the more ‘active’ level require the patients to ‘do something’ to learn, either as an individual (completing a crossword puzzle) or as part of a social group (playing a board game).

b. Participation in writing

Participation as a social responsibility can be signalled through the presence or absence of directives, for example auxiliary verbs (should or must) that demand something from the reader (Halliday, 1978). Questions ‘demand’ information and when they are ‘asked’ or ‘answered’ by the patient in a turn-taking lay-out, they can construct the patient as active and involved, whereas a doctor that demands information but then answers his or her own question could construct learning as passive ‘listening’. A speech act can also ‘offer’ information as “objective, dispassionate knowledge, ostensibly free of emotive involvement and subjectivity” (Kress & Van Leeuwen, 2006:121).

c. Participation in images

‘Offer’ and ‘demand’ images signal social positioning as well as participation. A demand image positions the person as looking directly at the reader, and their gaze requires entering an imaginary relation (Kress & Van Leeuwen, 2006). The reader is asked to ‘connect’ and establish rapport. Demand images signal an expectation for active participation. On the other hand, an image may offer the represented participants “as items of information, objects of contemplation, impersonally, as though they were specimens in a display case” (Kress & Van Leeuwen, 2006:119) that can be considered or ignored; in other words, no action is required. Images that do not contain humans looking at the viewer are also considered ‘offer’ images, including scientific diagrams or images of heart valves, and the type and content of these images may realise various types of relationships and expectations of participation.

To summarise, this analytic framework draws on Bezemer and Kress’ (2008) social semiotic interpretation of pedagogic recontextualisation (Bernstein, 2000). The framework affords a multimodal social semiotic approach to analysing students’ health education artefacts, to explore both epistemic and relational aspects of patient-centred communication behaviour.

4.4.2 Analysis of student reflections

Whereas the artefacts ‘articulate’ students’ individualised health education advice, the critical reflections articulate students’ design journeys. In other words, students’ reflections illuminate and explain their semiotic choices in relation to their ‘interest’. The reflections represent both the re-articulation of patients’ stories as well as students’ represented ‘inner speech’, how they strategized around ‘non-compliant’ patients or learning challenges such as poor literacy, and what they claim to have learnt from the process.

The students’ responses to the patient’s story and their motivations for each design choice are sought through a deep reading of the reflection alongside its corresponding artefact. This ‘deep reading’ takes a to-and-fro approach and aims at a micro level to identify words and phrases that motivate for specific semiotic choices or encode communication strategies. The iterative process assists in confirming, contesting or expanding the reader’s interpretation of the design features. In many instances, these motivations seem straightforward, for example, the student writes “I chose the colour yellow because...”. However, students’ design choices may also reveal conflicting interests that they struggle to explain succinctly, or neglect to explain at all. For this reason, the analysis not only looks for words, clauses or chunks of information relevant to a semiotic choice, but also attempts to identify subtle and more dominant themes at a macro level. The purpose of analysing the reflection is to gain both an overall understanding of students’ approach and a rich and deep description of the detail. Both layers contribute to understanding students’ notions of patient-centred health education. After the reflection has been coded in this way, the findings are grouped according to the semiotic categories set out in Table 1. The aim is to orientate explanations to the choice of content, the organisation of text and the students’ represented attitude towards the message and the patient.

Understanding the students’ choice of content draws both on their recounting of the patient’s history and on their explicit and implicit reflections on design choices. Specific attention is paid to whether (and in what ways) a biopsychosocial approach to understanding the disease is evident, and how they justify their choice of RHD information as responds to the patients’ needs and perspectives. Salient aspects include: what informed students choice of RHD information relative to their patients’ medical condition, how their patients’ psychosocial history informed their design and choices, and to what extent students probed their patients’

knowledge and understanding of the condition. Students' explanations are then brought into conversation with literature on patient-centred communication.

The analysis also looks at why learning was structured in a certain way as being 'coherent' for a patient. It looks at the reasons the students provide for favouring a learning strategy, and to what extent they relate to the patient's expressed preferences or the student's reading of the patient. Students had to make judgements on their patient's language proficiency, level of literacy and preferred learning methods. For example, presenting information incrementally as a series of simple questions and answers may be interpreted as attempts at 'scaffolding' learning; this interpretation is only valid as a patient-centred strategy when students explain how and why this semiotic choice meets their patients' particular learning needs. As with content selection, themes are sought that explain students' choice of arrangement, directionality and foregrounding strategies, and these themes may even highlight contradictions or assumptions about the patient that was not evident in the artefact's reading.

Students' reflections are also interrogated to understand their take on the social roles and responsibilities that constitute the doctor-patient relationship, and what they see as being an empowering social context for a specific patient. How students motivate choices that encode their stance and their engagement with their patients bear traces of the discursual tensions and professional dilemmas that they encounter in adopting a patient-centred approach, and are articulated as relational themes in the reflections. For example, students' take on responsibility and autonomy becomes visible in how students talk about balancing the risk of factual error (due to oversimplification) with the patient's perceived ability to understand the information. The students' understanding of the social order is seen in what roles and responsibilities are assigned to doctors, patients and significant others. As future doctors, students are maximally interested in their patients' adherence to treatment, and their reflections show how they negotiate between articulating a certain stance, and engaging their patient's cooperation. Some students may accept 'blind adherence' as a substitute for empowerment, while others may design elaborate participatory 'empowerment strategies' which they motivate and explain in their reflections. Relational themes regarding the health care system and the broader social context are also explored.

4.4.3 Analysis of patient interviews

Analysis of the patient interviews provide the researcher with another ‘perspective’ of the patients’ context. According to Bezemer and Jewitt,

social semiotics argues for a situated perspective on communication... context has to be theorized and understood as another set of texts (2009:3).

Analysis of the patient interviews provide the researcher with another ‘perspective’ of the patients’ context and the students’ reasons for approaching the design in a certain way. The research interview included ‘taking the patient’s history’ and probing into aspects that would provide more light on students’ choices. Privileging the patients’ view on a certain aspect during analysis would introduce an ‘evaluative’ paradigm; for this reason, interview data is supplementary and analysis focuses on identifying themes that provide context.

As with students’ reflections, the interviews are coded through a deep iterative reading in relation to the semiotic categories set out in Table 2, and findings on a micro level are progressively combined to find larger themes on a macro level. The analysis firstly aims to identify themes that help to explain the students’ ‘outlook’ and provide more context to the student’s epistemic choices, that is, what types, representations and organisation of information is considered meaningful and useful by the patient. Secondly, the analysis looks to the patient data to understand the students’ ‘activation strategy’ (Michie, Miles & Weinman, 2003). This involves probing what patients view as challenges to adherence, and how they deal with it. It also involves patients’ experiences with and perspectives on the roles and responsibilities of families, communities, students, doctors and health care institution. Attention is paid to exploring themes that were raised by students in their reflections, for example when students were concerned about social stigma. Where artefacts were used, the analysis focuses on clarifying the meaning and reasons for patients’ responses.

4.5 Limitations and considerations

Multimodal social semiotic analysis is a novel approach to patient-centred communication and responds to Epstein et al.’s (2005) call for qualitative, richly-descriptive research. Social semiotics foregrounds purposeful meaning-making based on students’ interest and the social

nature of communication. The study was designed to account for potential limitations of taking a social semiotic approach.

Bazalgette and Buckingham (2013) argue that reductionist approaches have led to confusion about the use and ‘usefulness’ of multimodal texts in learning contexts. Using multimodality theories to analyse the work created by children in classrooms ‘ignores’ the haphazard and emotional nature of communication, as if “the scientific rationalism of the analyst has been vicariously transferred to the ordinary meaning-maker” (Bazalgette & Buckingham, 2013:98). Social semioticians, on the other hand, insist that their emphasis is not on formal and abstract systems of grammar, but on the ‘lived reality of language use’. Hodge and Kress (1988) counter that the emphasis should always be on the ‘lived reality of language use’;

[t]raditional semiotics likes to assume that the relevant meanings are frozen and fixed in the text itself, to be extracted and decoded by the analyst by reference to a coding system that is impersonal and neutral, and universal for users of the code. Social semiotics cannot assume that texts produce exactly the meanings and effects that their authors hope for: it is precisely the struggles and their uncertain outcomes that must be studied at the level of social action, and their effects in the production of meaning (1988:12).

Furthermore, it is important to remember that multimodal textual analysis can only describe; the interpretation of the ‘interest of the sign-maker’ must and will always be informed by broader social contexts.

It seems that while at least some of the criticism can be levelled at overly simplistic views and uptake of (aspects of) multimodal social semiotic theory by certain ‘end-users’, there is a need for research that combines a social semiotic description of text with analysis of the content as well as rich descriptions of the social and political contexts where the texts are both produced and consumed. This study’s design speaks to the need for embedding social semiotic analysis within a socio-political setting and for making the voices of both the text producer and the intended audience heard. The analysis is treated as “an unfolding and contingent process” (Archer, 2004:66) which avoids the risk of ‘essentialism’ or reading certain meanings into the text and reifying it.

The multiple sources of data that are read together during analysis create a credible description and explanation of patient-centred communication in this context. The findings are therefore bounded to a context and time, but this fact does not reduce the relevance of the study. Rather, the findings inform a deeper understanding of the phenomenon of patient-centeredness in how it has been operationalized in this context, in revealing both the

challenges and innovations prompted by situational factors. It is this understanding that contributes to informing practices in other settings.

Lastly, the design of the study takes account of the fact that the artefacts were not only produced as products of a creative and stimulating learning experience, but were also created to be assessed as part of the overall Pharmacology mark. The students had two ‘audiences’: their patients and their teachers. While the Pharmacology lecturers generally placed great emphasis on patient education, the tension between biopsychosocial and biomedical approaches explained in Chapter 2 was also felt in this clinical rotation, with some Pharmacology staff voicing criticism of either the activity or artefacts that contained little drug information. To counter this, students were repeatedly assured that their motivation for selecting or leaving out biomedical content would be the deciding factor in assessment, rather than the biomedical content itself, and every effort was made to guide the students towards prioritizing the patient (rather than the lecturer) as audience. A measure of success in this area was assumed when, during a pilot project with ‘oral contraception’ as topic, many students contested the prominence of ‘the Pill’ as most appropriate contraceptive method and chose to design artefacts focussing on condoms and other devices (Weiss, 2014). Furthermore, students were at the time informed that they would not be rewarded with marks for an artefact that looked good but did not respond to their patient’s profile, needs and challenges in some way.

4.6 Ethical considerations

Being both a teacher and a researcher in the medical field makes a unique perspective available but requires different and sometimes conflicting responsibilities and orientations. A teacher takes an active role in affecting change in students’ knowledge, skills or attitudes through designing or facilitating learning activities, whereas a researcher ‘observes’ those activities in order to understand or explain a particular phenomenon (Wong, 1995). When trying to do both simultaneously, tensions between “the ethical (what is the right thing to do?) and the logistical (how do I do it?)” (Wong, 1995:22) may surface. For these reasons, the two roles were separated as much as possible. At the time, the fourth-year Pharmacology teaching activity was developed in answer to a real gap in the medical curriculum, rather than with a view to doing research. Once the Multiliteracies workshop had been piloted, peer-reviewed and adjusted based on student assessment and feedback, a co-teacher took over the teaching. However, I was still a course convener and examiner in other subjects; to

ensure that no student would feel vulnerable or pressured to give consent, I delayed the research until the student cohort I had selected for study had graduated.

Another, more unexpected conflict of interest arose from my dual identity as interviewer and clinician. Patients were recruited by a research nurse who assisted with obtaining written, informed consent and translation when needed; interviews mostly took place directly after their routine clinic visit and most interviewed patients were keen to participate. However, it quickly became apparent that patients had many unanswered questions about their illness that surfaced especially once they started engaging with artefacts as stimulus texts. Although this development reaffirmed the value of using stimulus texts in obtaining rich and complex data during interviews, it was necessary to separate participants' need for information from the research focus. This was done by explaining that time would be made available at the end of the 'research component' for patients' RHD questions, when the interviewer again assumed the role of clinician in order to respond actively to patients' queries, give advice and debunk myths.

In doing educational research, it is particularly important to pursue a dialogic account of the phenomenon under investigation. This has in some respects already been dealt with in the rationale for the study design. In addition, specific steps were taken to ensure that each of the multiple inputs (the researcher', the students' and the patients' voices) were heard and interrogated. Transparency on the researcher's epistemological orientation is an essential part of the process. Patient interviews were conducted together with an experienced multilingual research nurse to ensure respectful and culturally-appropriate interaction, and to ensure that patients could express themselves in their own language if they chose to do so. In the case of students, one of their classmates was available during the consent phase in case students had further questions or reservations that they did not want to discuss with the researcher-teacher. At the same time, all the necessary steps were taken to ensure that students' and patients' contributions were treated in ways that ensured their anonymity, including removing identity markers from artefacts and reflections, using pseudonyms and storing data securely.

4.7 Conclusions and framing of analysis chapters

This chapter describes this study as a qualitative exploration of students' and patients' perspectives on patient-centred health education. It locates the research epistemologically

and ontologically in a social constructivist paradigm, and presents the study design, choice of data and analytic frameworks in terms of realising a multi-layered view of students' communication behaviours. In response to some of the critique against a social semiotic textual approach, the study aims both to analyse students' artefacts and interpret their epistemic and relational choices using supplementary data. This design derives from and contributes to the notion of patient-centred communication as 'responsiveness' or 'informed flexibility' to patients' needs (Epstein et al., 2005).

The following three chapters deal with the analysis of the data. The students' artefacts speak to contextual challenges that originate from linguistic diversity and the legacies of a colonial past, these include language barriers (Schlemmer & Mash, 2006; Deumert, 2010; Raynor, 2016), poor education and literacy (Dray & Papen, 2004; Schulz & Nakamoto, 2012), differing social and cultural values (Penn, Watermeyer & Evans, 2011; Saha et al., 2011), social inequality (Thornton et al., 2011; Viswanath & Ackerson, 2011) and hegemonic medical discourses in the health care system (Bodenheimer, 2005; Coovadia et al., 2009). Contextual factors such as language and educational disparities are inextricably linked, but to enable a deeper reading, each chapter foregrounds a different area of communication challenge.

The artefacts that were chosen for analysis are neither the 'best' nor the 'most patient-centred' examples. Rather, artefacts were chosen that provide particularly interesting and nuanced views on 'discordance', or 'mismatching' of participants' perceptions or expectations within a particular context (Saha et al., 2011; Coran, Koropecj-Cox & Arnold, 2013). Chapter 5 explores the strategies that students employed in designing artefacts for a patient with whom they could not converse in English during the interview. Chapter 6 explores students' responses to a patient whose hegemonic struggles against the health care system originates from cultural, sub-cultural and social value differences. The artefacts in chapter 7 foreground students' responses to a patient whose challenges arise from socio-economic disparities within a broader South African context.

The structure of these chapters is determined by the need to foreground patients' individual histories as the contextual background to students' designs and choices. This provides an almost narrative feel to this work, which is intentional: in a constructivist approach, it is through participants' different 'voices' that a phenomenon is understood. The three analysis chapters follow the same structural sequence. The chapter topic is introduced and followed

by a summary of the patient's history, as it was told to the students. Since some patients were interviewed by more than one student, presenting the analysis in this way shows the different approaches that students take to the same problem. The students' artefacts are then analysed, and the social semiotic analysis of artefacts are interwoven with data from both the student reflections and the patient interviews to interpret semiotic choices.

Because the analysis requires an interweaving of different 'voices', specific writing conventions are used to distinguish between contributions from the students, the patients, the participants represented in the artefacts and experts from literature. Written words or phrases taken from the artefacts are shown in italics and single inverted commas, for example, a booklet page heading is shown as '*Complications*'. Words or phrases quoted directly from the student's reflection or the patient's interview transcript are shown in unitalicised form within double inverted commas, for example, John argues that "patients must adhere". Quotations taken from literature follow the conventions of the Harvard Referencing System.

In the following chapter, the challenges of dealing with language barriers are foregrounded. The findings suggest that situations where students and patients are unable to converse in a shared language, beyond the limited dialogue learnt in medical school, have a significant impact on how patient-centred communication can be operationalised.

CHAPTER FIVE

Language barriers: when ‘khohlela’ is not enough

5.1 Overview of chapter

This chapter foregrounds students’ health education responses to a language-discordant encounter, where “the provider and patient shared little or no common language (Brugge et al., 2009:358). The chapter provides a brief overview of the challenges associated with language barriers in the clinical environment. The artefacts that were selected for analysis were produced by two English-speaking medical students, Miriam and Rosie, and their patient was Ms Plaka, who speaks Sesotho and isiXhosa. Drawing on the students’ history-taking and reflective notes, an outline is provided of Ms Plaka’s personal and medical background as a RHD sufferer. Miriam and Rosie’s multimodal artefacts are analysed from an epistemic and a relational point of view, and the social semiotic analysis is interweaved with comments from students’ notes and from the research interview with Ms Plaka, which was conducted with assistance from a trained interpreter. The chapter demonstrates the presence of a biomedical approach in the absence of shared language of conversation, and a discourse of deficit in relation to African languages.

5.2 Background

The lack of a shared, common language in an increasingly globalised and multi-ethnic society is one of many communication challenges between doctors and their patients. Along with issues such as cultural differences and socio-economic difficulties, this “language chasm” (Brach, Fraser & Paez, 2005:424) contributes worldwide to serious disparities in health care (Ferguson & Candib, 2002; Brach, Fraser & Paez, 2005; Saha et al., 2011). Doctors struggle to get an accurate history and explain important information, and patients are unable to communicate their problems or discuss their fears (Ferguson & Candib, 2002; Levin, 2005; Deumert, 2010). The result is mutual dissatisfaction with clinical interaction, increased risk of non-adherence and poorer health outcomes (Paternotte et al., 2015; Rocque & Leanza, 2015).

The situation in South Africa is no different. Even though issues of language, ethnicity, race, health literacy and socio-economic status are interlinked in the South African context (Levin, 2005; Schlemmer & Mash, 2006; Coovadia et al., 2009), having eleven official languages pose a significant problem in health interaction. Crawford (1999) documented serious structural, attitudinal and skills-related language problems in public hospitals. She found that doctors were “linguistically ill-equipped to care for isiXhosa-speaking patients” (Crawford, 1999:27), that untrained bystanders were doing the work of interpreting and that patients occupied a disempowered position in a biomedical discourse. Little had changed with the adoption of PHC; ten years later Deumert (2010) found that

linguistic barriers between English/Afrikaans-speaking providers and isiXhosa-speaking patients are a deeply entrenched structural feature of the public health system, and significantly impede the provision of equitable and effective health care fifteen years after the end of apartheid (2010:53).

This chapter focuses on how notions of patient-centred communication are operationalised when medical students are faced with serious language barriers. Students’ artefacts represent their attempts at negotiating this ‘language chasm’ in a health education context. Even when language discordance is being foregrounded, it is important to keep in mind that a breakdown in cross-cultural communication is as much related to participants’ knowledge (or lack) of the language as their respective social belief systems (Crawford, 1999; Grainger, Mills & Sibanda, 2010; Thomas, 1983). To understand the context in which students’ designs are located, a brief narrative of the personal and medical history they elicited from Ms Plaka is provided.

5.3 Ms Plaka’s story

The students’ notes on Ms Plaka are brief. Ms Plaka is presented as a 48-year-old African woman who travels once a year from a remote rural area in the Eastern Cape to attend the cardiac clinic at a large tertiary centre. She has lived in her village all her life, attended school until standard four (primary education) and never learnt to speak English, which is not unusual in rural communities. After falling ill with RHD, she lost her job as a construction worker, and she currently lives with four of her six children in informal housing. The family relies on child grant support and financial contributions from her older children, and this is a great source of stress for her. She loves cooking and is active in her local church and

community. She doesn't drink or smoke but had in the past used dry tobacco 'snuff' which she stopped on advice from her cardiac doctor.

From her file, it seems that Ms Plaka's troubles started eight years previously when she experienced progressive swelling and shortness of breath (symptoms of heart failure). She was eventually referred to a larger centre in 2008 with a diagnosis of severe mitral and aortic valve disease. In 2009, she spent several months in the Intensive Care Unit and had to undergo a mechanical heart valve replacement. She was put on warfarin tablets (to prevent blood clots from forming on the valve) and an anti-hypertensive drug. Apart from her annual check-ups, she goes for monthly warfarin testing at her local clinic in the Eastern Cape and has a contraception injection every two months. Ms Plaka is compliant with her treatment and has never missed an appointment. However, she indicated to the students that she did not understand anything about her condition or what led to her problems in the first place. She confused questions regarding penicillin prophylaxis with taking contraceptive injections, but she did know that pregnancy is not advised in patients with valve disease, and therefore she rigorously adheres to the contraceptive regimen.

5.4 Overview of students' respective approaches

The students, Miriam and Rosie, both experienced difficulty because of the language barrier. However, they tried to conduct the interview using the basic isiXhosa they had learnt at medical school and consulted her medical file extensively to fill the gaps. In making artefacts, both students relied almost exclusively on visual resources to realise their health education information. Social semiotic analysis of their artefacts suggest that their designs realise a rather superficial 'basic literacy' approach to health education (Nutbeam, 2000) which constructs a 'discourse of deficit' (Dray & Papen, 2004). More importantly, their reflections reveal a lack of insight into and complacency about how their constructs maintain an asymmetric status quo.

5.5 Miriam's book cover: 'doctor knows best'

Miriam's artefact is a removable book cover, and is meant as a sleeve for an A5 notebook which Ms Plaka always takes with her to health care clinics. This book contains her list of medications, dosing regimens, any changes that were made and appointment dates. Miriam explains that now Ms Plaka would always have her RHD information nearby and could even

place the cover on the new booklet when the old one was full. She could also “pass it on to her friends so that they could also learn about RF and RHD”.

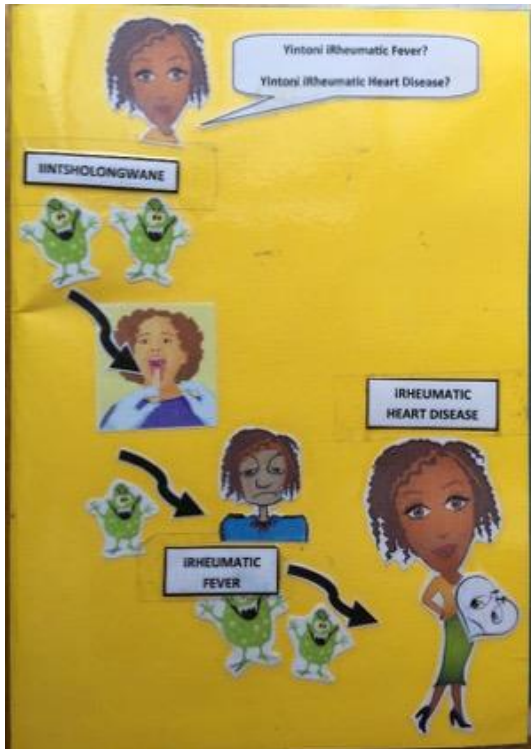


Figure 5.1: Miriam's front cover

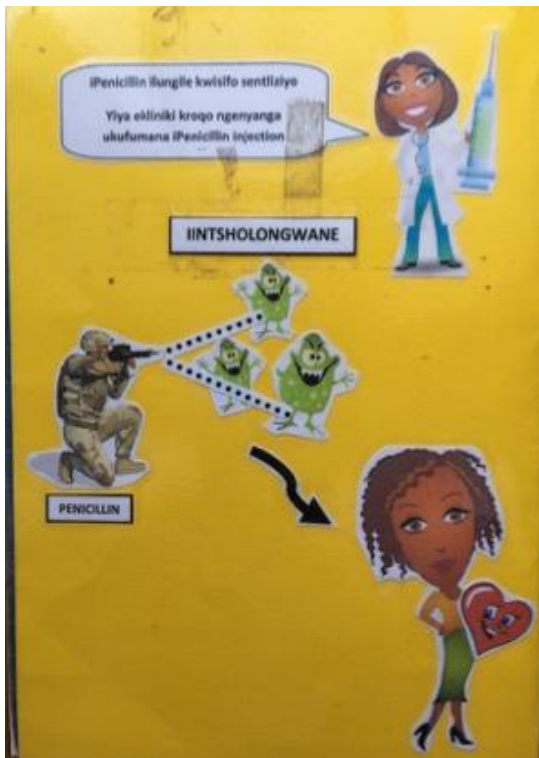


Figure 5.2: Miriam's back cover

5.5.1 Selecting and representing RHD information

The book cover consists of a front and back page covered in adhesive plastic. Each page is laid out as a series of labelled cartoon images connected by arrows and arranged on a bright yellow background. Written text is restricted to labels and two ‘speech bubbles’. This design constructs the selected RHD information in the form of a two-part visual narrative. It relies on explaining RHD as a ‘story’ with a beginning (the disease) and ending (the treatment), and uses affective visual modal resources to connect this knowledge with things from Ms Plaka’s lifeworld that she already ‘knows’.

5.5.1.1 Knowledge as ‘how you got RHD’

Kress and Van Leeuwen suggest that “the hallmark of a narrative visual ‘proposition’ is the presence of a vector” (2006:59). Vectors may realise both textual and ideational work (Halliday, 1978). In the first image at the top of the front page (Figure 5.1), a speech bubble emanates from the main ‘character’, seen here as a head and shoulders view of a brown-skinned woman, and described by Miriam as “a middle-aged black female... of the same age and race group” as Ms Plaka. Speech bubbles can act as vectors in that they construct ‘projective’ structures connecting the human participant with a speech act (Kress & Van Leeuwen, 2006:68). In other words, they ‘give voice’ to certain participants within a narrative. On the front page, the voice belongs to this black woman, and she asks the question: ‘*Yintoni iRheumatic Fever? Yintoni iRheumatic Heart Disease?*’ (what is RF/RHD?). Miriam explains that she used “the face of this woman to ask the questions” which “should help Ms Plaka feel more comfortable about asking such questions – a woman of similar demographics also lacks understanding of these conditions”.

The ‘answers’ to these questions start at the next image, in which fierce-looking green creatures labelled in isiXhosa as being ‘*iintsholongwane*’ or ‘bacteria’ are introduced. The green bacteria are positioned as the ‘actors’ in a unidirectional transactional process, connected by thick black arrows as ‘doing something’ to the woman, who is represented as ‘goal’ (Kress & Van Leeuwen, 2006:59). She is shown at first “as a teenager” having a throat examination. This is again followed by more bacteria and an image labelled ‘*iRheumatic Fever*’ in which she looks ‘miserable’ and has (what is meant to be) a thermometer in her mouth. The last image, labelled ‘*iRheumatic Heart Disease*’ shows her in full with a cut-out of a heart superimposed over her chest, and represents a type of ‘ending’ to part one: Miriam

writes that “her development of RHD is demonstrated by a colourless heart with a sad expression when she is middle-aged”.

The story continues on the back cover (Figure 5.2). The narrative is again introduced through a speech bubble acting as vector. The speaker here is a female doctor in white coat and stethoscope, holding an oversized syringe and declaring in isiXhosa that (loosely translated) ‘penicillin is good for the heart, and one should go to the clinic monthly for a penicillin injection’. This is followed by another transactional vector, this time a soldier in camouflage gear, labelled as ‘*Penicillin*’, firing at a group of green bacteria. This transaction structure within the larger narrative represents a type of visual nominalisation (Kress & Van Leeuwen, 2006:62), in that “the act of killing bacteria’ heals the woman. The now healthy woman signifies the ‘goal’, and Miriam affirms that “this time she has a colourful red heart with a happy expression”.

The information Miriam selected would be helpful to someone who had just been diagnosed with rheumatic fever, and who must initiate injections and stay on penicillin for 5-10 years. However, Ms Plaka already had complications of RHD on first presenting to the hospital, and was not put on penicillin after her valve replacement. Therefore, Miriam’s choice of content is a mismatch to the situation. In her reflection, Miriam provides a detailed motivation for and critique of her design choices, but avoids motivating her choice of content, and this omission is significant.

During the research interview, Ms Plaka’s personal and medical history was obtained with the help of a knowledgeable interpreter. This conversation revealed omissions in students’ history-taking notes, and provided a rich account of Ms Plaka’s perspective. It was evident that Ms Plaka’s knowledge of her condition was indeed very limited. The first doctor told her that “her heart was leaking... she cried a lot”. On insistence of her eldest son, she went to another doctor for a second opinion; here “they said she must go for an operation and... and a sort of a watch will be put inside her heart... the question she asked the doctor was, are they going to take out her heart, and then the doctor said no we will actually repair it”. She was happier with this explanation. She is sure this is what was done during surgery because “she hears it... there is a watch that says (interpreter makes tick tock sound) inside her heart” and that speeds up when she gets too excited. As to the cause of all these problems, she told the interpreter “they asked if she drinks alcohol and she said never, she never drinks

alcohol... and they asked if she smokes... and she said she doesn't smoke but she does snuff... and how many times a day and she said she can't count... and then they said the cause was the 'snuffing'". Ms Plaka was distressed by this information, and even though it was difficult, she stopped using tobacco 'snuff'. She takes her warfarin and other medication. Her biggest fear is that she might have a stroke, and therefore she follows her doctors' orders strictly.

When shown Miriam's artefact, Ms Plaka understood most of the information. She told the interpreter that it says the problems with her heart supposedly started with bacteria 'in her mouth' and fever, and she was surprised at this information as she did not know this prior to seeing the artefact. She also understood "getting treatment at the clinic" but the image of the soldier confused her. She did not herself connect the label '*Penicillin*' with the soldier, as she had never heard of it and had not used it. It is possible that her confusion stems from having different socio-cultural interpretations of soldiers, but it is also likely that this information did not make sense because she could not relate to it in a physical sense. It was unfamiliar, unlike the 'fever' and 'sad' heart which was part of her own 'lived experience' (Conrad & Barker, 2010).

It was apparent from Ms Plaka's reaction that this knowledge about RHD did not change anything in her view. She wanted information about the drug side effects she had been experiencing, which she thought were warning signs that she was about to have a stroke. It appears as if Miriam had not invited questions, possibly because this would extend beyond her limited isiXhosa knowledge (medical words, phrases and simple sentences). However, the fear of a stroke had been bothering Ms Plaka for a long time. She even stopped her tablets at one time and the side effects went away, but because she became afraid that there could be even worse consequences, she started using them again despite the symptoms.

This comparison of Miriam's selection of factual content, her history and reflection notes and Ms Plaka's requests for information during the interview reveals a significant gap, and supports findings from literature that this type of patient's information needs are not being met (Ferguson & Candib, 2002; Levin, 2005; Deumert, 2010). Doctors in language-discordant dyads struggle to elicit an accurate history, explain the disease and treatment or do counselling (Levin, 2005). In Ms Plaka's case, this is evident across all three these areas. She was originally misdiagnosed as having tuberculosis (TB) even though probing her

history through the interpreter shows that she had experienced typical symptoms and signs of rheumatic fever throughout her childhood that were repeatedly missed by healthcare practitioners. The use of snuff cannot cause valve damage and there is limited evidence of its role in exacerbating heart failure (Asplund, 2003). This information was either withheld or was not explained to her in a way she could understand. Communication across language barriers takes longer, and in settings where the workload is already high and interpreters are not available, doctors sometimes ignore verbal and non-verbal cues and even explicit questions from patients in order to ‘get the job done’ (Deumert, 2010). Doctors also tend to simplify discussions, act in more directive ways and prioritise talk on treatment rather than what is most important to the patient (Ferguson & Candib, 2002; Levin, 2005; Karliner et al., 2011). Despite having demonstrated her willingness to do whatever it takes for the sake of her health, the interview data showed that Ms Plaka did not even receive the simple dietary counselling on food types that affect the blood levels of warfarin, and being unable to ask about her side effects, confused relatively benign symptoms with an impending stroke- a misconception that had caused her considerable anguish.

5.5.1.2 Knowledge as ‘lifeworld experiences’

Since Miriam feels that Ms Plaka cannot be educated through written means, it is important to her that Ms Plaka should be able to ‘relate’ to the knowledge being constructed. She therefore creates a visual ideational representation of the world that Ms Plaka should be able to ‘recognise’. Although Kress and Van Leeuwen warn that visual and verbal structures “are not simply alternative ways of representing ‘the same thing’... narrative visual structures are comparatively easy to ‘translate’” (2006:76). Miriam creates ‘clauses’ that construct the pathophysiology of RHD using visual participants and vectors. Metonyms of the amoeba-like creatures ‘attacking the heart’ and the soldier ‘killing the bacteria’ construct a visual metaphor representing ‘war’ to explain complicated inflammatory processes and drug actions (Bounegru & Forceville, 2011).

In constructing her main character, demographic features and consistency is important to her. She writes that she rejected photographic images in favour of using cartoons, because she could attach different hearts to the same cartoon image using glue, and adapt a different ‘younger’ image by cutting out and gluing on the older woman’s hair. She also created images with “expressive faces” to represent RHD knowledge in terms of human characteristics or experiences, for example, dismay, feeling miserable, sadness and

happiness mark different stages of 'being a patient'. Miriam's 'doctor' is presented as "professional (due to her white coat and stethoscope) but also friendly (her 'open' stance, big smile and wide eyes)" to signal the desirability of treatment. These characteristics extend beyond human identities. Bacteria do not have faces or personalities in the true sense; Miriam's bacteria, on the other hand, "have evil facial expressions... to convey the message that these bacteria can damage the heart".

Colours with 'lifeworld symbolism' were also used extensively to realise the meanings of RHD information (Kress & Van Leeuwen, 2006; Van Leeuwen, 2005). Miriam writes that the yellow background affords the possibility of "contradicting symbolism" in that it realises "happiness, joy and hope... but on the other hand, cowardice, deceit and mourning". She compares this duality with the negative associations of RHD and the positive effects of penicillin, but acknowledges that this is her own 'interpretation' and is most likely of little meaning to Ms Plaka. The 'colourless heart' represents the "morbidity and lack of life associated with RHD", the red heart signifies "penicillin gives life" and the green 'spotty' colour of the bacteria is meant to represent 'sickness'. Miriam motivates these design features as being "aimed at making it easier for Ms Plaka to relate to the information".

Miriam's reliance on 'familiar faces' to which Ms Plaka can relate and even 'the meanings of colour' is a form of visual 'conversationalisation'. Fairclough (2000) uses this term to refer to instances where traditional knowledge boundaries are restructured, for example between doctors' understanding of science and patients' understanding of the world. In these 'hybrid' texts, difficult concepts are made 'ordinary' and therefore appear accessible to 'ordinary people'. In the absence of a shared language, the conversationalisation in Miriam's design is a "strategically-motivated simulation and appropriation of lifeworld practices linked to objectives" (Fairclough, 2000:175). In this case, the objectives relate to constructing ideational and interpersonal meaning in a situation where communication has broken down. Hybrid texts are also 'intertextual', that is they are "full of snatches of other texts" (Fairclough, 1992:84). Miriam's visual design is like public health education posters (for example, on diabetes) that draw on the design conventions of entertainment and media genres, which include cartoon figures and speech bubbles.

The use of these types of texts for patient information is not new or novel. However, evidence on their usefulness is limited and even contradictory. For example, a study located

in a busy Emergency Department showed that patients who receive cartoon-based wound care advice were much more likely to adhere to the instructions, and patients with less than high school information even more so (Delp & Jones, 1996). In a different study the use of pictograms in paediatric injury prevention counselling among patients with poor literacy skills did not improve information recall (Powell et al., 2000). One possible reason for these contradictory reports concerns the most fundamental principle of social semiotic theory: that of the interest of the sign-maker in relation to their audience (Kress & Van Leeuwen, 2006; Kress, 2005). In the Emergency Department study, the information was directly relevant to the patient, whereas patients in the paediatric study may have had a different information agenda and reason for visiting the clinic. The information (for example, keeping guns out of reach of children) was also not necessarily socially relevant or ‘of interest’ to everyone. Similarly, Miriam’s design and her reflection shows her interest to be with the pathology of RHD, with ‘where RHD comes from’, whereas Ms Plaka’s questions show her interests to be with ‘what is going on now’ in her body.

If the purpose of health education is to attain better states of health, patients need ‘critical literacy’: going beyond ‘understanding’ to being able to do something with that knowledge (Nutbeam, 2000). Debunking Ms Plaka’s fears on the benign side effects of her medication could have made all the difference to her experience of living with RHD. Eliciting and understanding patients’ information needs is part of developing a ‘therapeutic alliance’ and ‘understanding your patients’ lived experience of the disease’ (Epstein et al., 2005). Selecting what is relevant is therefore a crucial component of the patient-centred interview.

5.5.2 Organising information

The meaning of a text is construed through how different elements are arranged, in what order they are negotiated and what parts are given salience (Bezemer & Kress, 2008). Miriam’s text follows a linear order from top to bottom and left to right. She chose this order to “make it more straightforward to follow”. The size and placement of images construct the disease as a ‘journey through time’ in that the first figure appears smaller and therefore ‘further back’ while the last figure is larger and ‘more recent’. This is the case on both the front and back pages. Vectors not only have an ideational role in the narrative but also have a textual function in terms of organising the text’s layout and reading path (Kress & Van Leeuwen, 2006). Miriam’s participants are connected to each other through the absence of

framing devices and through the presence of thick black arrows that link them in a curved 'path' across the page. A curved arrow "partakes of the symbolic value of the circle, so the process is represented as 'natural' and 'organic'" (Kress & Van Leeuwen, 2006:71). The information on this page represents the 'natural progression' of RHD without treatment interventions. The vectors therefore not only indicate the preferred reading path but also link together the different phases of the journey or 'stages' of the disease. It can also be argued that the curvy shape of the arrows (as opposed to a more directive straight arrow) suggests a pause, or delayed passing of time. In contrast, the connecting vectors between the soldier and the bacteria are straight and realise an almost sensory "multiplicity" (Kress & Van Leeuwen, 2006:72) through thick dotted lines, as if representing the rapid staccato 'ra-ta-tat' of a machine gun. This strong transactional vector is reinforced through the straight lines of the soldier's arm and the gun barrel.

Saliency is judged by "the weight of the various elements of a composition" (Kress & Van Leeuwen, 2006:202). Just as the relative sizes of the woman's head foregrounded 'the present' as opposed to 'the past', repetition of the same images is used with great success to create a 'phased rhythm' related to the woman's experience. Not only is the image of the woman repeated four times on the front page, but viewers are also likely to assign "psychological saliency" (Kress & Van Leeuwen 2006:63), which may be reinforced by affective emotive markers. In other words, this message is about the 'progression' of this woman's disease. This interpretation is reinforced through repeating the word '*iRheumatic*' four times in the speech bubble and labels. On the back page, the large size of the syringe suggests a foregrounding of penicillin, and this is similarly reinforced through repetition of '*penicillin*' in the speech bubble and label. This is confirmed by Miriam's motivation for her page composition: "I wanted to convey two messages: firstly, the pathogenesis of RF and RHD and secondly, the beneficial effects of penicillin injections".

Miriam went to a great deal of trouble to build her story through consistent visual 'architecture' (Fairclough, 1992). To her, the organisation of the text was particularly important in the light of the language barrier. However, on probing Ms Plaka for her learning preferences during the research interview, the first thing she asked was "if it's the books or the pamphlets what language will be there?" Ms Plaka has first-hand experience of the informal interpretation practices in the South African healthcare setting. She had little faith in the doctors or nurses near her home town regarding their ability or their willingness to

explain or even just translate English-language resources, and she wanted to be self-sufficient. She preferred Sesotho texts but could also read isiXhosa, and she did not care whether cartoons were used. During the research interview, Ms Plaka revealed that she was actively involved in her community's health needs, caring for bed-ridden patients when she was physically able to and even doing health education regarding cervical cancer screening and vaccination among young women. For her, the lack of health care information in African languages is not just an individual concern; it is a social concern.

One of the stimulus texts available during the interview was a 'Speaking Book' (Sorsadahl, Dworzanowski & Wilson, 2016) where each page of the storybook is linked to an audio-clip of someone reading along in isiXhosa (Figure 5.3 and 5.4 on the next page). Ms Plaka took almost 10 minutes quietly going through it, and then told the interpreter "I love it and I want it!" She then immediately launched into negotiations about acquiring it for her village: 'I'm happy... I want to know... when you put together this book... are you going to sell these books if these books had to go to my village?' The information in the Speaking Book was extensive, covering not only the why and how of developing RHD (including the soldier metaphor and some physiology of cardiac function), but also the side effects that had so bothered her. She understood all of it, because it was presented in a language she could understand. In other words, having the information in her own language was for Ms Plaka the most important design/communication consideration, and it enabled her to become a resource for her own community.

The students' pedagogic discourse (Bernstein, 2000) relates not only to decisions on epistemic content and organisation of their artefacts, but also what social relations are likely to create a suitable learning context. This requires constructing a particular stance or credibility in relation to expectations of the audience (Hyland, 2005). The next two sections show how Miriam's book cover constructs credibility through adopting the strong authorial stance of a medical discourse and by positioning her patient as someone who is 'suffering' and therefore 'is compliant' with her treatment.

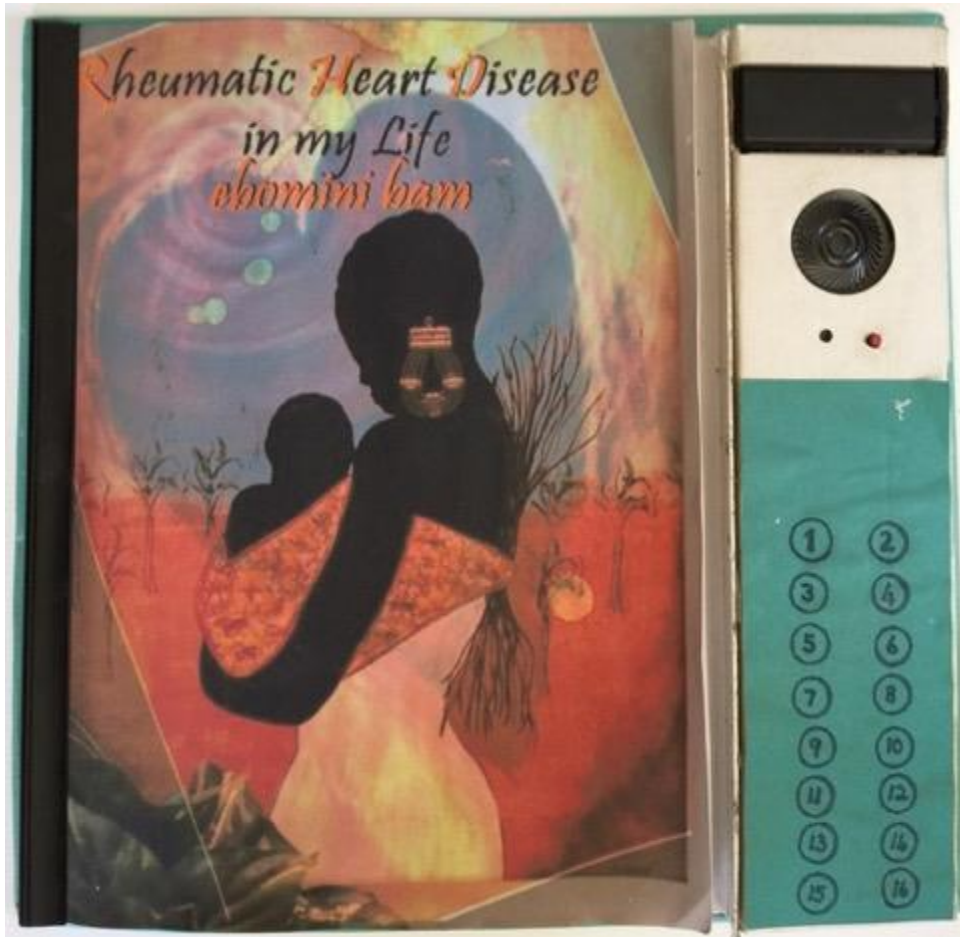


Figure 5.3: Speaking Book front cover

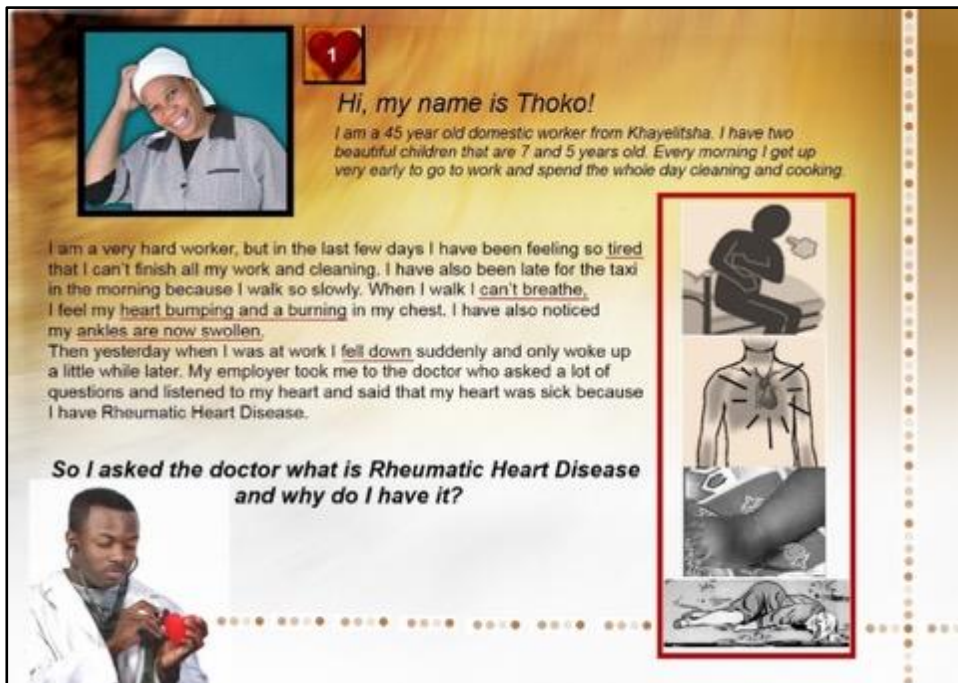


Figure 5.4: Speaking book page 1

5.5.3 Modality as authorial stance

The credibility of a proposition can be encoded through the degree to which it is supported by ‘evidence’, or through inserting a strong authorial presence (Hyland, 2005). Miriam’s book cover with cartoon-like characters and simple message at first does not appear to have much credibility, having more in common with everyday conversation and life than with clinical medicine. However, “realisations of modality in images is much more complex and finely graded than the realisations of modality in language” (Kress & Van Leeuwen, 2006:163). In this case, credibility is signalled through Miriam’s choice of genre. The artefact is a cover for Mrs Plaka’s notebook, which she carries with her on clinic visits and which contains vital information such as her clinic dates, her treatment regimen and documented ‘evidence’ of her adherence. This booklet is particularly important to Mrs Plaka because she does not speak English, and she relies on it in dealing with her health care providers. Miriam appropriates the booklet’s status by putting her message on its cover. The yellow colour was chosen because it ‘shouts’ for attention; Miriam argues that “(y)ellow is also associated with emergency vehicles, signalling “urgency and seriousness”. Furthermore, Miriam intended it to be hardwearing and long-lasting, so that Ms Plaka could pass it on to someone else, and this affirms its ‘truth value’.

In the visual mode, Miriam realises authorial presence primarily through the image of the doctor. She is dressed in a traditional white coat and stethoscope and holds an oversized syringe and needle. Her accompanying speech bubble contains the longest and most complex ‘speech act’ in the design. Even though they are not being projected from the doctor’s image as speech bubbles, it is possible that even the isiXhosa labelling of bacteria and disease are meant to represent her ‘voice’: doctors and patients often have to communicate at clinics in the ‘abbreviated style’ consisting of isiXhosa words and phrases that students learn at medical school (Crawford, 1999; Deumert, 2010). Furthermore, even though tablets are popular with patients as an alternative to the painful penicillin injections, the doctor in this artefact offers only ‘injections’ (both in the image and the speech act). These are from a medical point of view the best option, but also means that the patient is on the ‘receiving end’, as it were, of a painful procedure.

These design choices illustrate the complex interplay of visual cues that work together to construct modality (Kress & Van Leeuwen, 2006). The artefact with its bright colours and

cartoons seem to suggest a rather patronising stance, considering that it is aimed at a middle-aged woman who is in fact an active health care advocate in her community. Miriam aims to construct an credible voice where ‘the doctor knows best’ and can be trusted to do ‘the right thing’. However, her reflection counters this authorial stance with a hedging statement: “I did not say that Ms Plaka has to have an injection. I merely stated the importance and benefits of such injections in those who suffer from RF and RHD. Thus, I respected her autonomy and the power she has to make her own, informed decisions about her health care”. This statement suggests that Miriam may have little insight into just how vulnerable Ms Plaka is, both in knowing what treatment is best for her, and in her position in the healthcare system. Miriam seems to pay lip service to the idea of autonomy, and to support traditional beliefs that authority and control lies with the doctor “as an inevitable consequence of the ‘competence gap’ between medical expert and lay patient” (Mead & Bower, 2000:1089).

5.5.4 Modality as social engagement

Whereas the previous section showed Miriam’s attitude or ‘stance’ towards the topic, the next section looks at her alignment with her audience. Miriam constructs social relationships that signify a more ‘public’ discourse and passivity rather than active participation.

5.5.4.1 Social distance: public and deficit discourses

Students assign different social roles and responsibilities to providers, patients and even family and community members. Social repositioning creates both an imaginary context for the interaction as well as imaginary roles for participants. Even though the artefact is ‘personalised’, this type of text is meant for a public space, and positions Ms Plaka as ‘the public’. Kress and Van Leeuwen suggest that degrees of social distance may be interpreted in images in relation to “different fields of vision” (2006:125). For example, on the front page, head-and-shoulder views of the woman dominate and may signify close (but not intimate) personal distance in line with her personal ‘journey’ with RHD. On the last page, whole figures with space around them dominate, creating a far social distance where ‘strangers’ become involved. Following this argument, the bacteria, which should only ‘be seen’ by specialists using a microscope, are also depicted as ‘public’ and ‘strangers’. This contrast underlines the distance between what is personal (her disease) and what is public (her treatment), and reminds us that for many patients, interaction with the biomedical discourse can be an alienating experience.

The use of 'empty space' signifies greater social distance. Miriam's cartoons are 'spaced out' across a yellow background that is devoid of any detail or context. Bezemer and Kress (2008) suggest that this type of spacing may be used as a signifier of ability. Although Miriam purposefully tried to make her artefact "simple", she both defended and critiqued the "empty look" of her artefact in the reflection. On the one hand, she reasoned that "it makes the content easier to follow"; on the other hand, she was worried that her book cover would "come across as belittling to Ms Plaka". She is very much aware of their asymmetrical relationship, writing that "personally, if I was given this book cover, it would seem quite child-like to me because of the use of cartoons, limited text and portrayal of penicillin as a soldier. This is most likely because I am a medical student with an in-depth knowledge of these conditions". However, it is not so much the cartoons which are the problem, but rather the lack of information; it signifies a cognitive 'empty space' in the sense that "providing less "information" is apt for those regarded to have a lesser capacity to process information" (Bezemer & Kress, 2008:190). However, it is likely that Miriam does not realise that by providing less information instead of providing information in a language that Ms Plaka understands, she is conflating language discordance with the patients' general ability to read and write. This lack of insight shows in her mechanistic solution to the problem of 'empty space': "I could have increased the size of the images to decrease this sense of 'emptiness'".

In analysing writing in on-line gaming, Jewitt (2005) found that even language that did not make sense 'meant something', in that it created an identity for characters that were more or less personable or accessible on an interpersonal level. Similarly, the simplistic isiXhosa words and phrases and the lack of detail and explanation create a certain 'poverty' of expression that contributes to a deficit discourse (Dray & Papen, 2004), and supports the notion that the words that are assigned to people in texts function "as a marker of identity, belonging, and difference" (Jewitt, 2005:320). A deficit paradigm is an approach that reads a situation against a 'normative standard', and constructs a narrow perspective of the situation that sees problems rather than potentials. For example, discourses on rural health may construct stereotypes that rural practices are poor environments to work in and are 'inherently problematic' (Bourke et al., 2010; 2013). Discourses of deficit also exist in education, where "bureaucratic culture fosters the pervasive assumption that when students misbehave or achieve poorly, they must be 'fixed' because the problem inheres in the students or their families, not in the social ecology of the school, grade, or classroom" (Weiner, 2006:42).

Similarly, the diversity of languages is viewed as inherently problematic in health care settings in South Africa. Because of the legacy of apartheid, most doctors cannot speak African languages socially. Apart from a few historically Afrikaans universities, students receive their Higher Education in South Africa in English. The fact that there are eleven national languages contributes to assumptions that English is a ‘unifying’ language that cuts across cultural boundaries, but this is only so because our society, history and politics have made it ‘the norm’. In other words, it does not matter that Ms Plaka can speak and understand three languages because she does not speak English. Patients who cannot speak or understand English in interaction with their health carers therefore run the risk of being stereotyped as ignorant, obtuse, passive, or unfit to process information (Crawford, 1999; Deumert, 2010). Normative thinking about language has created and maintained the idea of language as a ‘barrier’, and assumptions about people who exist on the ‘wrong side’ of that barrier “are especially powerful because they are unspoken” (Weiner, 2006:42).

5.5.4.2 Participation: asymmetrical power and participation

The concept of ‘offer’ and ‘demand’ is useful not only for exploring interactive relationships as being more engaged or more detached (Kress & Van Leeuwen 2006), but also for making expectations of participation explicit. Apart from asking the question ‘what is RF/RHD’, which may be construed as ‘demanding an answer’, the main character is depicted as the ‘goal’ in a transactional representation. In the long view, the patient’s body seems turned slightly to the side, as if she is shying away from the viewer, and perhaps from the things happening to her. The doctor, on the other hand, ‘demands’ to be heard. Her physical stance faces the viewer and she looks them straight in the eye. Kress and Van Leeuwen suggest that “the frontal angle is the angle of maximum involvement. It is orientated towards action” (2006:145). This doctor’s speech act tells the viewer to go to the clinic, and the oversized syringe and needle almost looks as if it is being thrust at the viewer. By comparison, the image of the soldier ‘offers’ an ‘explanation’, in that he is turned away from the viewer, and the bacteria are being shot at.

Miriam’s use of gaze is interesting. Images of people infer a certain ‘psychological salience’ (Kress & Van Leeuwen, 2006:63), even more so in this case where the woman’s identity was crafted to represent ‘similar’ demographic characteristics to Ms Plaka’s. In contrast to her body’s oblique angle, her face is turned to the viewer. The woman’s gaze acts as a “visual

form of direct address” (Kress & Van Leeuwen, 2006:117) that establishes interactional contact. Her eyes are also large and appealing; when she is sick, they show dismay or misery. This is true even of ‘the eyes of her heart’. Her gaze therefore goes beyond establishing contact, it “demands that the viewer enter into some kind of imaginary relation with her (Kress & Van Leeuwen, 2006:119). The mute interactional appeal of her gaze, combined with her passive role in the development of RHD, casts her as a victim whose only recourse is to ‘listen’ and to ‘receive’. Although Miriam does not discuss her use of gaze in the reflection (other than so that “Ms Plaka can relate to it”), this interpretation of passivity does seem to fit with her ‘deficit view’. Nevertheless, Miriam’s description and depiction of the doctor as “friendly (her open stance, big eyes and wide smile)”, as well as the fact that she “specifically chose a black female doctor” are meant to signify a professional bond between doctor and patient. In reflecting on this relationship, Miriam even concedes that the large injection could possibly make Ms Plaka feel intimidated, and that “perhaps it would have been more beneficial to use an image with a smaller needle”.

Ms Plaka has been adhering ‘blindly’ to her treatment for years and invests a great deal of trust in the authority of doctors. This trust is stronger even than her own suspicions and insistence that the tablets will give her a stroke: “because it's doctor's instruction I will take them... if I have to die then I will die if he doesn't listen”. On being pressed why she would go against her own instincts, the interpreter explains that “she doesn't want to look like a patient who doesn't obey doctor's orders”. In other words, there are also cultural imperatives at play (Crawford, 1999; Grainger, Mills & Sibanda, 2010). Ms Plaka is for all intent and purposes ‘voiceless’: she has limited ways of communicating her concerns, she has too little information on which to base objections or make informed decisions, she is constrained by her own socio-cultural values, and her doctors (including Miriam), being blind to all of this, take her silence as ‘assent’ (Crawford, 1999; Levin, 2005; Schlemmer & Mash, 2006; Deumert, 2010).

5.5.5 Miriam’s summary

As is evident from her reflection, Miriam’s interview with Ms Plaka was conducted with great difficulty. Even though it is a lamentable situation, it is perhaps understandable that the lack of a common language would affect how patient-centredness is operationalised in practice. The language competency that students acquire in medical school is adequate for

asking standard questions and receiving standard answers, but it cannot support an explorative conversation. Without access to an interpreter, Miriam was not able to pursue a more biopsychosocial approach during history-taking, which should have included finding out how the disease is affecting Ms Plaka as an individual and on a social level. Instead, their standardised interaction provided details such as hobbies and living conditions but did not elicit the fact that Ms Plaka had meaningful side effects and misconceptions. Ms Plaka believed that her own medication was going to give her a stroke, and this perspective had caused her significant distress of which Miriam was not aware of. Based on the informational ‘poverty’ of this interview, Miriam selected generic content for her artefact which is not meaningful to Ms Plaka – what she needed was information on side effects and everyday life-world aspects (such as diet) that could influence her medication.

From a relational point of view, Miriam’s health education artefact constructs traditional asymmetrical power relationships. The language barrier precluded Ms Plaka from setting the agenda of the interview regarding her needs and learning preferences. Perhaps Miriam also believed that there was no reason to pursue the issue of shared decision-making. Ms Plaka was clearly a ‘good patient’; she did what she was told and had been ‘blindly adherent’ (in other words compliant) for many years. Miriam seems to accept their asymmetrical relationship as inevitable under the circumstances and uses her medical authority to do ‘what she can’, which provides little room for options, dissent or negotiation. Without the possibility of building a shared understanding, the idea of a therapeutic ‘alliance’ becomes moot. The discourse of deficit positions Ms Plaka as a victim, and the naturalistic orientation of Miriam’s design contributes to a sense of inevitability that ‘this is the way things are’.

A deep analysis and thematic reading of the data suggests that, despite the mismatch between content and patient, Miriam draws on the patient-centred approach in other ways. In trying to construct a shared understanding of RHD, Miriam draws on every-day affective markers such as happiness and sadness to supplement the smattering of isiXhosa phrases and words learnt in medical school. Personalising the demographics of her main ‘characters’ is a way of recruiting the patient’s experiences, suggesting she is trying to ‘see’ the world through the eyes of this woman. She realises that her limited knowledge of isiXhosa is significantly affecting her care of this patient, and writes in her reflection that “I felt like I needed to revise my isiXhosa learning after the interview”. Both her artefact and reflection shows that she is concerned about establishing a connection or bond with her patient, and this is an important

relational aspect of a patient-centred interview (Epstein et al., 2005). She tries to reach into Ms Plaka's own lifeworld, creating a book cover that has a practical use even for Ms Plaka's friends and neighbours, and selecting demographic features that create a familiar and non-threatening environment. However, the disconnect that is brought about by the language barrier means that none of these efforts are particularly meaningful to Ms Plaka.

On a personal level, Miriam also felt overwhelmed by communicating across the 'language chasm', saying that "generally, I would explain conditions and other information to patients in a verbal manner". What Miriam is trying to express is that she can communicate in a more patient-centred way with English-speaking patients. This is an important admission, as Mead and Bower (2000) foreground the doctor's attitudes and assumptions as a fifth domain of patient-centredness; it may be impossible to 'measure' but is crucial to the interaction, as "patient-centred medicine is a 'two-person medicine'" (2000:1091).

However, this awareness does not necessarily result in behaviour change during communication challenges. Despite having access to isiXhosa tutors at medical school, and ample time to complete the task, should she have asked for help from them, Miriam did not pursue a language solution. This suggests that the disconnect of the language barrier positions Ms Plaka as one of many non-English speaking patients in a public health system, and Miriam as one of many English-speaking doctors, and the difficulty of communication is accepted as a systemic inevitability.

This contradiction between awareness and behaviour is also found among doctors on the clinical platform. Even while agreeing that "there is a barrier to access to service if you cannot speak or communicate" (Deumert, 2010:53), many doctors believe that in trying to 'get by' with broken English and gesturing, they can at least get the job done. However, this results in 'unproductive interactions' (Goudge et al., 2009); patients cannot ask questions or discuss their problems, and doctors cannot explain properly or respond to the patients' needs. Despite her unease, Miriam's artefact shows the same acceptance of this status quo: her artefact is light on information, and may contribute to constructing a discourse of deficit, which in turn contributes to perpetuating inequality and "an institutional silencing of patients' voices" (Deumert, 2010:58).

5.6 Rosie's booklet: an accountability dilemma

Rosie decided to make a small, simple booklet that would educate her patient “about what her condition is and how it came about, since she seems to know extremely little about it”. Like Miriam's, it consists of images and headings and labels in English and isiXhosa.

5.6.1 Selecting and representing RHD information

The booklet is half the size of an A5 page, and consists of eight small ‘pages’ held together by a red ribbon (Figure 5.3). Rosie explains that it shows “in sequence, the patient undergoing the steps of rheumatic fever and heart disease”. The cover page is labelled ‘*Rheumatic Heart Disease*’ and ‘*The progression*’, and a large photo of two hands shaping a heart is the most salient feature. Rosie confirms this as the theme, identifying the participants as “the patient and their heart” with the heart being “the main player”. Hearts are absent from page 1 and 2 as they deal with, respectively, ‘*Bacteria/Intsholongwane*’ and ‘*Rheumatic Fever*’. On page 3, labelled ‘*Rheumatic Heart Disease*’, there is a cartoon of a worried-looking ‘sick heart’ and another being examined with a stethoscope. Page 4 features “a cartoon heart looking tired and rundown, illustrating heart failure”. Page 5, labelled ‘*Some people have an operation...*’ shows green-gowned surgeons at work and beneath it “the heart being patched together with plasters”.

Page 6 is meant to represent two options or pathways, separated by the words ‘*Or/Okanye*’. The top pathway shows a photograph of a syringe and needle and a ‘happy’ heart while the lower pathway shows the ‘bacteria’, a ‘sick’ heart as well as a ‘broken’ heart held together by a safety pin. The booklet's last page features a large heart shape labelled ‘*Ask your doctor about Penicillin*’. Bacteria are represented though metonymy using the same cartoon character as Miriam had. Its sickly green colour, sharp fangs and outstretched arms are criterial (Kress, 2005) and signals that it can ‘hurt’ or ‘catch’ someone. Metonymy is also realised in each heart character: the ‘patch’ and safety pin signal fixing something that is broken, while the sweat and running shoes conjure up ‘tiredness’. Seen together, they act as a visual metaphor presenting the complex pathophysiology of RHD as human qualities, thereby resolving the ‘unfamiliar’ in terms of the ‘familiar’ (El Refaie, 2003; Bounegru & Forceville, 2011).

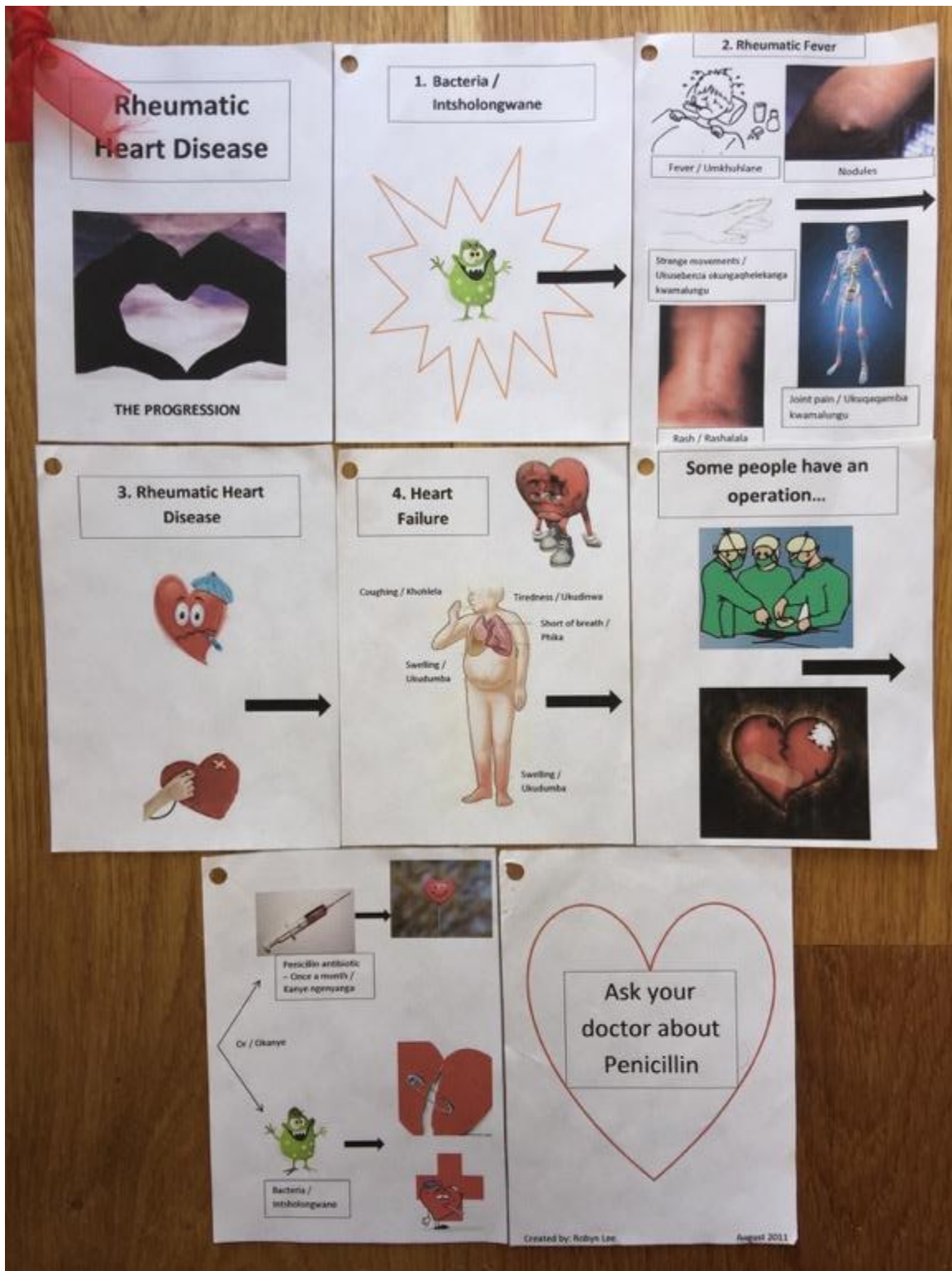


Figure 5.5: Rosie's booklet (deconstructed)

Whereas the overall structure of the booklet construes a narrative, the contents of the pages marked 2 and 4 realise 'classification', where "analytical processes relate participants in

terms of a part-whole structure (Kress & Van Leeuwen 2006:87). The headings identify the ‘carrier’ concepts and the images construct their attributes. Page 2 features images which illustrate symptoms and signs of ‘*Rheumatic Fever*’. On page 4, a picture in diagrammatic style represents a person with ‘*Heart Failure*’; however, the person is transparent to foreground that which is critical: the organs of the chest and the annotations. The wording (labelling) are also translated into isiXhosa, for example, ‘*Coughing/Khohlela*’. All the headings and words, and most of the images are framed, either through a black framed box or through a sharp contrast with the white background.

In contrast to Miriam’s naturalistic ‘curviness’, the overall impression of this design is that of ‘angularity’. Kress and Leeuwen argue that “in contemporary Western societies, squares and rectangles are the elements of the mechanical, technological order, of the world of human construction” (2006:54). They suggest rationality and human endeavour, rather than the inevitability of nature that is associated with curves. This suggests that Rosie appropriates more of a biomedical view of RHD, where the problem is something that can be deconstructed and inspected at close range, and for which a ‘solution’ can be found. The narrative thereby becomes a scientific ‘flow diagram’ where both images and annotation become “objectifying labels” (Kress & Van Leeuwen, 2006:48). However, as with Miriam, Rosie’s selection of content is not relevant to Ms Plaka at all; her content focus is on penicillin, which Ms Plaka has never used.

5.6.2 Organising information

The way in which the design elements are organised within and across pages contributes to its coherence as a message that ‘makes sense’. Rosie’s “main player” or most salient participant is the rheumatic heart that progresses through four phases, indicated by headings and numbering: ‘*Bacteria/Intsholongwane*’, ‘*Rheumatic Fever*’, ‘*Rheumatic Heart Disease*’ and ‘*Heart Failure*’. These are not merely page numbers, as the last three pages are not numbered. Rather, each page is framed as being a ‘separate stage’ and is connected to ‘the next stage’ with a thick black horizontal arrow pointing from left to right. These connecting vectors across and within pages indicate the reading path; Rosie’s design discourages ‘browsing’ and the only place where this path splits is in ‘choosing’ between a ‘happy’ and a ‘sad’ outcome. Repetition of the word ‘*heart*’ and images of hearts contributes to

foregrounding technical and physiological meaning rather than the person suffering from the disease.

When shown this artefact, Ms Plaka spent the most time looking at the pictures of symptoms and signs, but she only understood the ones that she had experienced herself. She did not interpret the ‘choice’ between taking penicillin or not; she thought the injection was for pain. On seeing the safety pin holding together the ‘broken’ heart (signifying a negative outcome), she said “So it's not a real pin it just means to fix something?... she knows that they did use a stapler with her... now she can relate this to her operation which took place”. Despite the ‘visual choice’ signified by the arrows, Ms Plaka identified with the pin; consequently, the ‘wrong’ pathway became foregrounded and the intended message was lost. This data supports Kress and Van Leeuwen’s warnings that “visual language is not – despite assumptions to the contrary – transparent and universally understood; it is culturally specific” (2006:4). Interpretation of Rosie’s text in line with the ‘rules’ of visual grammar may correspond with her stated intent in the reflection, but Ms Plaka interpreted these resources in line with her own ‘interest’.

5.6.3 Modality as authorial stance

Rosie’s stance is seen in how she encodes the booklet as being a credible source of information (Hyland, 2005). In the absence of a significant written component, she relies on the artefact’s credibility as fitting in with institutional medical discourse. Rosie’s choice of content and images constructs a generic, biomedical version of RHD. This type of knowledge is traditionally associated with a scientific approach, as if it encodes ‘objectivity’ which is ‘credible’. Furthermore, some of the content is recognisable to Ms Plaka as symptoms she had experienced herself and this assigns a higher modality to these images. Finally, the gowned surgeons symbolise an authority that is almost ‘absolute’ in their literal ‘handling’ and ‘repairing’ of the sick heart.

Like Miriam, Rosie is aware of the asymmetry in her relationship with her patient, and as discussed, her paternalistic approach is quite common on the clinical platform under these circumstances (Levin, 2005; Deumert, 2010). However, both these students demonstrate a serious breach in respect to their professional responsibility as doctors. Both foregrounded penicillin, and it begs the question of why this was done if their patient had never used this

drug, and was unlikely to use it in future. Miriam avoids issues of accountability by speaking very indirectly about this choice, saying that “I did not say that Ms Plaka has to have an injection. I merely stated the importance and benefits”. Similarly, Rosie deflects accountability to Ms Plaka, by instructing the patient to ‘*Ask your doctor about Penicillin*’. Rosie explains that “We cannot understand why she is not given a monthly IM injection at her clinic every month when she goes to have her INR checked... we are not sure what the exact reason for this is... The reason is not due to poor compliance”. She then explains that her question acts as a prompt for the patient, who should check with her own doctor whether she should be on penicillin prophylaxis or not. This is a significant finding. As was seen in Ms Plaka’s medical history, medical errors are not uncommon, and it is well documented that language barriers contribute to patients being treated incorrectly or being misdiagnosed (Levin, 2005; Deumert, 2010). Every doctor in the long chain of chronic management is therefore responsible to ensure that the pathway of care remains appropriate and error-free, more so when language barriers exist. However, Rosie exonerates herself from checking up on these facts by suggesting that Ms Plaka do the inquiry, “in this way taking control of her own health”.

This attitude is especially unsettling in the light of Ms Plaka’s vulnerability as a non-English speaking patient, and it shows that neither Miriam nor Rosie understand what ‘shared decision-making’ or empowerment means. As was the case with Miriam, Rosie’s hedging gives credence to critics of the patient-centred model, who argue that “(p)atient autonomy is often seen simplistically as the counter to medical paternalism”

5.6.4 Modality as social engagement

The next section looks at how Rosie signifies social alignment with her audience. Like Miriam, she constructs ‘public’ and deficit discourses and low expectations of participation.

5.6.4.1 Social positioning as ‘the public’

In textual productions, interactive participants are positioned to take specific roles through resources that construct social distance or solidarity (Kress & Van Leeuwen, 2006). Rosie’s booklet realises a more detached and impersonal doctor-patient relationship. The booklet looks like many other generic, institutional booklets found in public areas. The sparse wording is completely impersonal and can be likened to the ‘abbreviated phrasing’ used

commonly with African patients in governmental hospitals (Crawford, 1999; Deumert, 2010). A depersonalised approach is also signalled through the contents of the images, which feature mostly ‘body parts’, and in transparency of the annotated human figure with its salient chest organs. This type of detachment is like the discomfort or avoidance behaviour that has been observed when clinicians are unable to communicate with patients (Deumert, 2010).

Rosie writes in her reflection that without it being her intention, she had to sacrifice a more equal power relationship with her patient. This is because teaching Ms Plaka and others ‘like her’ necessitates a simple design. Like Miriam, she takes a ‘deficit view’ of language differences, and resorts to simplicity rather than including more isiXhosa. This perspective highlights the dialectic nature of such a discourse of deficit: it responds to perceived inequalities while at the same time serving to perpetuate the status asymmetry, whether intended or not. The deficit view plays a significant role in how students operationalise patient-centred communication in interaction with language-discordant patients.

5.6.4.2 Low expectations of ‘participation’

Rosie uses offer/demand propositions to position her patient within a depersonalised relationship with minimal interaction and participation. The human ‘gaze’ of a represented participant has significant potential to establish an interpersonal connection with the viewer. In Rosie’s booklet, however, the heart failure figure turns his head away to cough and the surgeons are angled towards each other, rather than towards the viewer, and contribute to the impression of social distancing. It is left to the ‘sick’ heart on page 3 to establish connection and extract some empathy through its worried expression. All the images ‘offer’ information rather than ‘demand’ action, which manifest as low expectations of participation corresponding with Rosie’s discourse of deficit. The wording on the last page ‘*Ask your doctor about Penicillin*’ seems to contradict this interpretation, but as was discussed earlier, this is an unrealistic demand and serves only to exonerate her from checking whether this was a case of medical error.

5.6.5 Rosie’s summary

There are many similarities in Miriam and Rosie’s approach to this health education task. Like Miriam, Rosie struggled to communicate with Ms Plaka and thus was not able to do a

thorough patient-centred interview. She could not explore Ms Plaka's lived experience of RHD, or what information she needed or what her autonomy preferences are. For this reason, she set her own agenda, which resulted in providing information on a drug that was not even prescribed to Ms Plaka, even though it is the 'textbook management' of RHD. Rosie's reflection hints that, like Miriam, she was perplexed at why Ms Plaka was not put on penicillin. She was unsure whether this was due to a different 'expert interpretation' of the RHD guidelines or to medical error. This inconsistency troubled Rosie, but not enough to make her get a second opinion from someone more senior. This would have been much more doable for her as a medical student than for Ms Plaka, to whom she shifted the responsibility as 'taking control of her own health'. This finding suggest Rosie may not understand what empowerment in the health care context means (Pilnick & Dingwall, 2011).

Rosie's depersonalised approach may be a way of avoiding ideological 'discomfort' with asymmetry by positioning Ms Plaka in terms of "a target audience: a middle-aged woman from the Eastern Cape who speaks almost no English and knows nothing about her condition". Jones (2013) refers to this process as 'entextualization': the act of technologizing individual people (like Ms Plaka) into being a 'certain types of people'. This interpretation would also fit with the dominance of a deficit paradigm that positions patients 'like' Ms Plaka as the 'problematic other' (Bourke et al., 2010). Entextualization may be strategically necessary for the creation of public health promotion tools, but is always 'an act of control' where power is a function of who has legitimacy to entextualize, what competencies are involved and what values are attached to different types of text (Jones, 2013).

Perhaps the most lingering impression that one gets from Rosie's artefact, is that she does not 'see' Ms Plaka. Deumert draws on Foucault's (1973) notion of the 'clinical gaze' to explain "doctors' ability to penetrate the body's secrets and ailments" (2010:56) during physical examination. However, "it needs to be followed by an interview, a conversation with the patient, thus intimately connecting vision/examination and language" (Deumert, 2010:56). One of Deumert's respondents explain:

A lot of the time a patient arrives, they are breathing heavily, so you think that it's probably a respiratory problem, or a cardiac problem, and you wanna ask them are they coughing, and you know the word is *khohlela* in Xhosa, but more than that, you can't really get. You wanna ask, are you coughing? Is it productive? Is it painful when you cough? Is blood mixed in, in the cough? You know, there is a problem, I mean, every professor of medicine will tell you three-quarters of your diagnosis comes from the history. And that is verbal" (2010:56).

In other words, language is not only the medium through which doctors *respond* to patients, but also through which they *understand* their patients (Levin, 2005). Furthermore, the clinical gaze is an instrument of power; a doctor “acquires expertise concerning and control over the observed (the patient)” (Gibson, 2004:2014). Without a shared language, the clinical gaze has the potential to make patients ‘invisible’ (Gibson, 2004), as that which is important to them is lost in the absence of a shared means of expression. This seems to be the case with Rosie; she defaults to a prevailing deficit paradigm through ‘simplification’ because she cannot ‘see’ Ms Plaka in real terms.

5.7 Conclusion

Language discordance is a global phenomenon, with minority groups attracting research attention in line with increasing diversity within nation-states (Ferguson & Candib, 2002; Brach, Fraser & Paez, 2005) and the increase in economically and politically motivated migration across national borders (Meeuwesen et al., 2006; Verma et al., 2016). This literature documents the value cultural competency training and the use of trained interpreters in caring for minority group patients. In South Africa, most patients are seen by doctors who cannot speak an African language. Furthermore, the nurses, cleaners, porters and other bystanders who are co-opted as interpreters are not paid or trained (Coovadia et al., 2009). Doctors must often rely on prompts like ‘*khohlela?*’, gesturing and guesswork. As in Deumert’s study, this analysis shows that knowing essential medical terms like ‘*khohlela*’ is not enough (paraphrasing Deumert, 2010:59). Both these students had selected content that was completely mismatched to their patient’s needs and they responded to the problem of language discordance by ‘dumbing down’. This strategy resulted in the narrowing down of the type and scope of information that was offered, at the expense of information which may have helped their patient to exercise more control over her management.

From a relational point of view, it is evident that these students struggle with the notion of empowerment and shared responsibility. It is disconcerting to see the students’ acceptance of asymmetrical power relations. However, their responses are no different than that of many, more senior colleagues whom they observe every day on the clinical platform, who are forced to ‘get by’ with reductionist communication behaviours and its consequences. Deumert writes that

[a]lthough providers were acutely aware that their daily practices violated these basic tenets of current policy, their response tended to be one of resignation and rationalization, rather than responsibility: 'The patients' charter which you see on the wall, it's glanced at, we can't live to ideals like that' (2010:56).

In exploring the health education artefacts made by medical students for a non-English speaking patient, this chapter has highlighted how students struggled to operationalise the 'taught' principles of patient-centred communication against what appears to be an impossible barrier. The view that they constructed of Ms Plaka as a passive and disempowered patient is different from the reflective and socially-active personality that emerged when a professional interpreter was used during the research interview. Furthermore, their assumptions on how Ms Plaka should 'take more control over her health' is a poignant example of the dangers of applying Western 'definitions' of patient-centred communication to an environment where, for many patients, language barriers preclude all but the most basic levels of communication. Curriculum designers need to acknowledge that linguistic barriers

are a deeply entrenched structural feature of the public health system, and significantly impede the provision of equitable and effective health care (Deumert, 2010:53).

In the absence of professional interpreters in health care settings, acknowledging the disempowering effect of language barriers requires a curriculum response at many levels, perhaps even regarding who are selected to study medicine and what subjects are valued. Medical curricula should provide explicit ideological and practical guidance on dealing with these types of situations. Most importantly, students should be sensitised to the dangers of deficit perspectives and encouraged to resist a system that allows the status quo to go unchallenged.

CHAPTER SIX

Cultural value differences in communication: ‘pushing back’

6.1 Overview of chapter

This chapter looks at students’ responses to ‘cultural discordance, or the “cultural distance that patients from different groups perceive between themselves and their health care providers” (Saha et al., 2011:280). It focuses specifically on cultural and micro-cultural value differences in relation to the institutional discourses and practices of the health care system. The artefacts that are analysed in this chapter were made for Ms Tsetando, and were produced by Neli, Beyoncé and Nosipho. To provide context, an outline of Ms Tsetando’s personal and medical background is given. The chapter shows how the three students draw on other lifeworlds to communicate with a non-adherent patient whom they perceive as ‘pushing back’ against medical hegemony.

6.2 Background

Culture may be loosely defined as “the patterned processes of people making sense of their world and the conscious and unconscious assumptions, expectations, knowledge, and practices they call on to do so” (Pasick et al., 2009:15S). Culture is not necessarily dependent on racial or ethnic origins. Even when people speak the same language, they hold membership of different ‘sub-groups’ within and across these large categories. For example, doctors from diverse backgrounds share a biomedical ‘micro-culture’ which is conserved and reproduced in interaction with others. This idea of ‘small cultures’ is

non-essentialist in that it does not relate to the essences of ethnic, national or international entities. Instead it relates to any cohesive social grouping with not necessary subordination to large cultures. (Holliday, Hyde & Kullman, 2004:63).

Socio-cultural value differences between patients and professionals in the health care system are often described as the “struggle between the voice of medicine and the voice of the lifeworld” (Barry et al., 2001:487). For example, factors that impeded communication between health carers and Aboriginal patients included “lack of control by the patient, differing modes of discourse, dominance of the biomedical model, lack of shared knowledge and understanding, cultural and linguistic distance, lack of staff training in intercultural

communication, and failure to call on trained interpreters (Cass et al., 2002:486). Similarly, in South African healthcare settings the institutional culture seems to foster perceptions of discrimination and increased feelings of vulnerability among patients (Jewkes, Abrahams & Mvo, 1998; Coovadia et al., 2009).

To foreground this struggle around institutional patterns in medical communication, this chapter focuses on artefacts designed for Ms Tsetando, an educated, well-spoken Xhosa woman with a history of ‘non-adherence’ to her medication. The analysis highlights entrenched institutional and interpersonal patterns of interaction as a legacy of a colonial and racist past, even 25 years after democracy (Coovadia et al., 2009). The students’ artefacts respond to Ms Tsetando’s resistance against an ‘inhumane system’ (Mishler, 1984) by drawing on her values and beliefs as a person with a particular social, cultural and ethnic identity.

6.3 Ms Tsetando’s story

In contrast to Ms Plaka’s notes, the students’ history and reflection notes on Ms Tsetando are rich in detail. Ms Tsetando, who converses in English in a confident and animated style, told students that she was a single mother of two from a local township, and lived in a shack fitted with electricity and a tap and communal toilets outside. She had obtained a national diploma in chemical engineering and at the time was working as a lab technician. She voiced close relationships with her children, family and community, and saw it as her social responsibility to help to educate others in her community. She told the students that after two cousins were diagnosed as being HIV positive, she undertook formal training in HIV counselling through her employer and eventually formed a local HIV education and support group. Similar to what she told the students, she explained in the research interview that: “I told myself I must equip myself with the disease, try to find out how it is, what are the circumstances of this diseases, and what we can do to help, because, what can we do to make them talk about it, because really, we found out at a later stage that they were having this disease and what is CD4 count and all that stuff”. Her social interests include reading, going to church and watching the news and ‘soapies’ on TV.

With regards to her medical problems, which started in 2008, Ms Tsetando told the students she had experienced bouts of shortness of breath, extreme fatigue and decreased

effort tolerance. Her symptoms started soon after she survived a traumatic robbery and rape ordeal, and she initially put her condition down to anxiety and post-traumatic stress. When her symptoms persisted, she sought help at the local clinic. During the research interview, she reiterated what she had told the students about her misdiagnosis: “the clinic told me, no, it’s asthma, so I constantly go to the clinic, and I end up telling them, no, this is not like... they were not helping me, so, at least, if they can write me a letter for one of those hospitals where they have all these machines where they can check what is really happening”. Eventually she by-passed the institutional hierarchy and went to a secondary hospital on her own accord. By this time, she was so ill that she could not walk, and had to be carried even to go to the toilets outside her shack.

At this hospital, she was diagnosed with having mitral valve damage and cardiac failure, secondary to rheumatic heart disease. She needed valve surgery, but was discovered to be pregnant and diabetic. With her surgery delayed, she was put on diabetic tablets, monthly intramuscular penicillin injections and a ‘water tablet’. As she told the students, she described the injections during the research interview as being “really painful... so I told them, no I’m not coming again... if they don’t change the medication, I’m not gonna go for that injection, it’s really too painful”. She was then offered the option of daily oral penicillin tablets for prophylaxis. Both diabetes and valve disease in pregnancy pose independent risks for mom and baby, and after being admitted to hospital her daughter was delivered prematurely but healthy. A few months later (in 2011) they were finally able to replace her diseased valve with a mechanical one and warfarin was added to her medication regimen to “thin” her blood. However, she told the students that she was now experiencing problems with this valve “becoming blocked”.

On being asked about how much she knew about her disease, she told the students she had used the internet for information. Even though she had no confirmation, she suspected that there might be a familial connection, as her mother had had penicillin injections and both her brother and niece had subsequently developed problems with their breathing. She expressed a preference for more interactive methods of health education (such as attending talks) over reading traditional pamphlets, explaining that it was especially needed at the local clinics where most people collected their treatment. Ms Tsetando admitted to the students that she often forgot to take her warfarin tablets because she had “lots of

distractions”. In other words, Ms Tsetando was a ‘defaulter’ or ‘non-adherent’ from a medical perspective.

6.4 Overview of students’ respective approaches

Although the three students met with Ms Tsetando as a group and submitted the same history notes, they followed different routes in producing their personalised health education artefacts. They all expressed concern that she did not adhere to her medication more rigorously; her mechanical valve posed a great risk for developing blood clots causing sudden heart failure or even a stroke or death, and her current problems were most likely a result of her warfarin therapy not being optimal. At the same time, all three students wrote in their reflections that they were perplexed at her non-adherence; as an educated person and a social activist she was both “empowered and knowledgeable about her disease” [Neli]. In other words, this went beyond the reasons usually associated for non-adherence, such as having literacy or language barriers, socio-economic challenges or a disinterested attitude. This situation seems to support Beagan’s finding that medical students underestimate socio-cultural influences on patients’ behaviour because medical socialisation tends to neutralise their own socio-cultural differences (2000).

In response to this conundrum, Neli produced a ‘periodical newsletter’ on warfarin, Beyoncé made a children’s story with origami figures and Nosipho made a ‘social mini-magazine’. Their respective strategies all had one thing in common: they positioned their patient as a member of different types of social communities and enlisted support for adherence through drawing on ‘important voices’ within these communities.

6.5 Neli’s booklet: enlisting the ‘voice of reason’

Neli’s artefact is discussed in more detail than the other two, as it not only had the most content and the most detailed reflection, but also elicited the most response from Ms Tsetando during the interview. In response to Ms Tsetando’s stated ‘forgetfulness’, Neli originally wanted to make an interactive calendar for her; however, she struggled so much to conceptualise this design that she settled on a ‘newsletter’ as text type.



Miss Tsetsana, get ready to be inspired

Know your Warfarin (Coumadin®) Therapy

A special message to you

The goal of anticoagulation therapy with warfarin (Coumadin®) is to decrease the clotting ability of your blood so that blood clots are prevented. The most important aspect of warfarin therapy is to keep your levels within a therapeutic range. If your level goes too low, you are at risk for blood clots, if it goes too high, you are at risk for bleeding. Many factors can affect your level. In order to provide you with the safest and most effective

therapy, your doctor needs you to act as a partner in your care. Your role is to gain the necessary knowledge about your warfarin therapy and the factors that affect it, and then apply this

knowledge to your daily activities. The purpose of this newsletter is to empower you with that knowledge. If you have any questions or concerns about your warfarin therapy after reading this newsletter, please speak to your doctor.



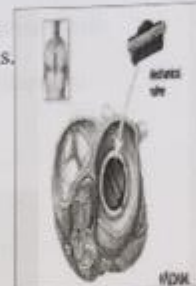
INSIDE THIS ISSUE:

What is warfarin?	2
When is it used?	2
How does warfarin work?	3
How do I take my warfarin?	3
An INR machine	3
What should I watch out for?	4
What are the possible side effects?	4

Figure 6.1: Neli's Warfarin newsletter front page

What Is Warfarin (Coumadin®)?

Warfarin (Coumadin®) is an anticoagulant. *Anti* means against, and *coagulant* refers to blood clotting. Warfarin reduces the body's ability to make blood clots. Your doctor wants you to take warfarin because your body may make clots that you don't need. These clots can cause a serious medical problem. A clot can move to another part of your body. For example, if a clot moves to your brain, it can cause a stroke.



This picture shows how an artificial heart can replace a diseased one



1mg



3mg



5mg

COMMON REASONS FOR TAKING WARFARIN

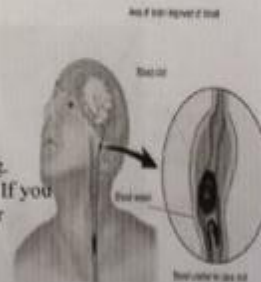
millions of people take warfarin, you can also do it!!!!!!

☞ **Mechanical heart valve replacement:** blood clots can form on the mechanical heart valve. If a clot forms on the valve, it can prevent the valve from functioning, or if the clot breaks off into your circulation, it can cause a stroke.

People with mechanical heart valve replacements must be on warfarin therapy for life (see picture above)
 ☞ **Heart attack:** sometimes warfarin is taken after a heart attack to lower the risk of death, lower the risk of another heart attack, and lower the risk of stroke.

☞ **Stroke:** if a stroke is caused by a blood clot going to the brain, warfarin is used to prevent it from recurring.
 ☞ **Transient Ischemic Attack (TIA) or "mini stroke":** Warfarin is given to prevent a stroke from occurring. (see picture below)

☞ **After certain surgical procedures:** some surgical procedures place a person at high risk for developing a blood clot (for example, major orthopedic surgery). Warfarin is given temporarily after the surgery to prevent a clot from occurring. Warfarin (Coumadin®) is sometimes given for reasons other than those listed. If you have any questions or don't understand something in this information, ask your healthcare provider for more information.



When blood clots it prevents blood from reaching the brain causing a heart attack.

Figure 6.2: Newsletter page 2

HOW DOES WARFARIN WORK?

Blood clots may form in people who have **artificial valves**, irregular heartbeats (atrial fibrillation), or other illnesses that cause the blood to clot.

Blood clots that form when they shouldn't can be dangerous. They can cause problems, including:

1. stroke, which blocks blood flow to the brain
- blockage of veins or arteries in the legs or in organs such as the lungs and kidneys



HOW DO I TAKE IT?

Take this medicine exactly as your health care provider prescribes. Do not take less or the medicine may not be effective. Taking more may cause bleeding.

Do not change brands of this medicine without talking to your health care provider or pharmacist. Other brands may affect you differently.

If you miss a dose of this medicine, take it as soon as you remember on the same day. **Do not** take a double dose. If you miss a day's dose, contact your health care provider right away.

*Ka ulibele
ukuthatha ipilisi
yakha,
ungazithathi
zibembini ngemini
elandelayo— do
not take a double
dose.....*

How do I know if I'm taking the correct dose of my warfarin tablets?

You will need to have blood tests regularly while you take this medicine. The main test is called prothrombin time, or PT. PT is sometimes called INR. The normal value of INR is between 2.0 and 3.0. If too much Coumadin or warfarin is given the INR goes greater than 3.0 and you are at risk of bleeding. If too little Coumadin is given the INR will be less than 2.0 and you will be at risk of clotting. Tests results are used to adjust the dose of warfarin. The medicine should keep the blood just thin enough to prevent clots (INR > 2.0). If the blood is too thin, you may bleed too easily (INR >3.0).



This is an INR machine

Figure 6.3: Newsletter page 3

POSSIBLE SIDE EFFECTS

Even though your warfarin is important, it may cause some unwanted side effects. Some side effects may be very serious. Some side effects may go away as your body gets used to the medicine. Tell your doctor if you have any side effects that continue or get worse.

Serious (report these to your doctor right away): Unusual bruising or bleeding; dark urine or stools; bloody urine; increased menstrual flow or vaginal bleeding; painful urination; discoloured fingers or toes; mouth sores; swelling, numbness, or tingling in fingers or toes; sore throat; fever; sudden weight gain; yellowish eyes or skin; severe headache, dizziness, or weakness; diarrhoea; rash; itching; stomach pain; severe joint or muscle pain; shortness of breath.

Other (usually temporary): Bloating, gas, loss of appetite, hair loss

IN SUMMARY

While taking warfarin it is very important that you:

1. Tell all healthcare providers, dentists, and pharmacists that you take warfarin. Carry some form of written notice or wear a bracelet that states you are taking warfarin.
2. Do not take any other medicines, including non-prescription products, vitamins, or natural remedies unless your health care provider approves. Warfarin can interact with many other medicines including aspirin, pain relievers, and antibiotics. The interaction may cause bleeding or other serious side effects. Also, do not stop taking any medicines or change the amounts you take unless you talk to your health care provider or pharmacist first.
3. Do not make big changes in your diet, such as eating a lot more green leafy vegetables than you usually eat. Vitamin K is found mostly in leafy green vegetables. Eat a healthy balanced diet with about the same amount of vitamin K each day. Your diet affects the way warfarin thins your blood.
4. If you miss a dose, take it as soon as you remember on the same day. Do not take a double dose of this medicine. Keep a record of the missed dose and report it to your doctor at the next visit.
5. Do not drink a lot of alcohol. It may interfere with this medicine. Do not take warfarin if you are pregnant or plan to become pregnant.



An alarm can help you remember to take your medicine.

Figure 6.4: Newsletter page 4

6.5.1 Selecting and representing RHD information

Neli describes a newsletter as a “periodical” for “subscribers”, something that provides a focus point within a larger conversation for a specific audience. In other words, her information offered ‘*Inside this issue*’ (as stated on the cover) is only a part of an intertextual ‘trail’ (Fairclough, 1992) of information on rheumatic heart disease. Furthermore, she reasons that “since a newsletter can be shared or circulated around... she can pass it to other people at the clinic so they can also be empowered”. In other words, she recognises Ms Tsetando’s status as an activist and educator among patients. Neli constructs her artefact’s epistemic domain both in terms of biomedical information and lived, experiential knowledge, but in the process also makes significant assumptions about the knowledge-seeking behaviour of empowered patients (Prigge et al., 2015).

6.5.1.1 Knowledge as focussed, in-depth biomedical information

Neli’s choice of text type is shrewd, as it affords the opportunity to focus in detail on warfarin therapy, without having to explain what the disease is, where it came from, and other more general aspects that she may assume a consumer of such a text will already know. Ms Tsetando responded to this explicit focus immediately; on being asked what design aspect would draw her attention if she saw it in a clinic, she gestured quite animatedly, saying: “I am not lying to you, I could have passed it, but because of it got a name that I know [points at heading], I am using this stuff [stabs at the heading repeatedly], I could have just taken it”. The front cover layout (Figure 6.1) follows the conventions of periodical journals, with a list of contents and page numbers, the ‘*Volume*’ and ‘*Issue*’ number, and an ‘editorial’ introduction. The ‘carrier and attribute’ layout of the front page (Kress & Van Leeuwen, 2006) is useful for delineating sub-topics and contributes to the factual credibility of the artefact, as it suggests a ‘timeless essence’ (Jewitt & Oyama, 2001)

The ensuing pages follow a question and answer layout discussing various aspects of warfarin therapy, warnings about possible side effects and culminating in ‘*In summary*’. This format also ‘conversationalises’ (Fairclough, 1992) the traditional medical discourse “by presenting the information in the form of a ‘lifeworld’ dialogue between the voices of a health expert and a layperson” (Dray & Papen, 2004:322). This type of ‘dialogically-organised’ layout is useful because it promotes “retention and in-depth processing associated with the cognitive manipulation of information” (Zhang, 2009:81).

The wording and structure of written clauses privilege 'warfarin' as the theme of this discussion: what it is, how it works, why and how it should be taken, how to know if the dose is correct and what side effects to take note of (Figure 6.2). Warfarin's brand name is repeatedly used in its propriety trade form as would be seen on its drug packaging '(Coumadin®)'. The text follows a conversation style (Fairclough, 1992) and the traditional medical discourse is explained "to make it more readable for readers who do not usually participate in medical discourses" (Dray & Papen, 2004:322). These strategies include explaining words like 'anticoagulant' as '*Anti means against, and coagulant refers to blood clotting*'. Similarly, sentences generally explain physiological 'cause-and-effect' processes in a relatively simple way, for example, '*your body may make clots you don't need... if a clot moves to your brain, it can cause a stroke*', '*if a clot forms...*' and '*if a clot breaks off...*'. Neli motivates her content as being core facts that are not simple, "because I want my audience to understand that this is an important issue" but reiterate that they explained "in simple English so my audience can understand everything that is mentioned".

Neli's choice of warfarin as focus, as well as the depth to which she explains the topic, was a perfect fit for her patient. When presented with this artefact during the research interview, Ms Tsetando spent almost 10 minutes quietly reading, often returning to previous sections, then looked up and said: "Can I take this with me?" She confessed that the detailed yet simple, factual explanations showed her to have a very superficial knowledge of warfarin: "I know I am using the tablet, but there were things that I didn't know why, I mean, why I'm using this, how it is working, I just know it thins my blood, I didn't know about the blood clot or something... it was really a helpful thing to come here, because I know some things that I didn't... I just thought I know". Ms Tsetando blamed her wilful self-adjusting of medication dosages and drug combinations on having "an 'illusion of competence' which is "a false belief that [she] had an adequate knowledge base for making a decision" (Makoul, Arntson & Schofield, 1995:1243). More importantly, she realised that this behaviour had led to clotting complications after her first valve repair.

This finding draws attention to the choice of information for health education. While types of language, methods or 'skills' and social interaction has been researched extensively under the umbrella of 'patient-centred communication' (Brugge et al., 2009; Claramita et al., 2013;

Nimmon & Stenfors-Hayes, 2016), few studies have focused on the relevance of the information provided by doctors. One study involving video analysis of over 270 patient interactions, surveys of doctors, follow-up interviews and document analysis, found that 85% of patients access most of their health information from their treating doctor, and in three quarters of cases the doctor was the sole provider of information (Makoul, Arntson & Schofield, 1995). Richard and Lussier suggest that “(w)hether survey or observation methodologies are used, results for the past 25 years tend to concur on the relative poverty of such discussions” (2006:208). If left unexplored, assumptions about the nature of information given during doctor-patient discussions may in fact contribute to the ‘doctor knows best’ hegemonic dominance being reproduced, even in the ways research studies are designed.

6.5.1.2 Knowledge as ‘lived experience’

Ms Tsetando understood and recognised the descriptions of side effects immediately, as she had experienced many of them herself. She had also been adjusting her own medication for years, and appreciated the explanation of the dosing complexities of warfarin. This intimacy with her tablets is mirrored in the small black and white photograph on the front page (entitled ‘*A special message to you*’) showing ‘her tablets’ in the palm of ‘her hand’. Under the heading ‘*What is Warfarin (Coumadin®)?*’ a row of 3 warfarin tablets in different drug strengths (Figure 6.2) are represented in realistic detail, slightly ‘larger than life’ sporting correct colour and markings on each tablet. The open hand with tablets is repeated on the next page (Figure 6.3), together with a labelled image of a small INR machine (used to test patients’ blood monthly for correct levels).

Ms Tsetando valued these images: “they are familiar to me because I am using them, it’s not the first time I see it... so it makes me feel that I’m on the right track”. This comment prompted her to describe in detail how she agreed to the valve operation despite her fears and misgivings, and against the advice of people in her community, because her experiential knowledge “forced me to agree”. She explains: “I noticed that I have the same symptoms that I had at first, but I ignored them, because I told myself, I’ve eaten tablets, even if I don’t, like, follow the instructions... but then that opens my mind, I have to take tablets no matter what, because I don’t want to go through that again”.

In presenting Neli's content in terms of "both biomedical and experiential dimensions" (Conrad & Barker, 2010:69), this analysis demonstrates that Neli takes a biopsychosocial view of illness and appreciates the value of eliciting Ms Tsetando's own perspectives. These are fundamental aspects of a patient-centred approach (Illingworth, 2010) and establish the basis of a 'therapeutic alliance'. Taking a Foucauldian view of knowledge, "expert knowledge about human "normality" and "abnormality," which is not objective or naturally given, is the principal form of power in modern societies" (Foucault, 1977 cited in Conrad & Barker, 2010:69).

When patients experience side effects to their medication, they may have the 'facts' wrong (like Ms Plaka) or may explain symptoms in terms of socio-cultural meanings. When doctors dismiss these symptoms as 'normal' or irrelevant, it does not change the reality of these experiences to patients. Ms Tsetando voiced her frustration on this issue, saying that "the water tablets, at first they used to make me nauseous, you just explain yourself what the tablets are doing to you, and then the doctor says, no, you have to take them." When practitioners deny or minimize the legitimacy of a patient's experiential knowledge, it can trigger feelings of helplessness that may have a negative influence on the patient's adherence (Makoul, Arntson & Schofield, 1995). These feelings of helplessness are also triggered by other aspects of cultural and micro-cultural difference related to biomedical dominance, for example, not being able to set the agenda, complaints being labelled as 'stress', and repeatedly encountering similar problems with a series of different doctors (Rocque & Leanza, 2015).

6.5.1.3 Assumptions about educated patients' scope of knowledge

Ms Tsetando told the students that she used the internet to access health information, and this led to assumptions about the scope and depth of her knowledge because they did not probe her answer. Firstly, she had no idea that she had rheumatic heart disease. Because she presented in adulthood with heart failure, no one had ever told her that her valve damage had been caused by rheumatic fever in her childhood. Instead, she explained during the research interview that "I went to the Google, what is the mitral valve disease, what is it you need to do". Thus, she never understood why the doctors insisted on painful penicillin injections. She was also never informed of the genetic vulnerability to Streptococcus bacteria

within families; if one of her own children had presented with a strep sore throat, she would not have made the link with a risk for rheumatic fever.

Secondly, she was diagnosed with diabetes at the same time, and as she was explicitly warned about the complications of diabetes, she concentrated her information-seeking on lifestyle changes related to diabetes: “basically, I can’t say that I was keen to know more about the disease. I wanted to know more food-wise... about what to do and what to eat... like I was fat you know, they told me that it is a very high risk”. The lesson learnt here is that just because someone is educated, has access to the internet and uses words like ‘mitral valve’, it does not negate the responsibility of the health professional to explicitly search out the knowledge gaps and to educate the patient accordingly (Brugge et al., 2009).

Furthermore, perceptions on what counts as important information and what had been talked about may differ between doctor and patient. Makoul *et al.*’s video-analysis of primary care encounters (1995) showed that there was a marked discrepancy between doctors’ perceptions of what they covered, and what information had been discussed; the most frequently-mentioned information was the brand name and instructions for use (most important from medical point of view), while the side effects and other information regarding risk-avoidance was the least discussed (but could be the most important from patients’ point of view).

6.5.2 Organising information

Neli uses graphic elements (such as font sizes, types, italics, bold, capital letters and even letter spacing) inconsistently throughout her artefact, resulting in a slightly messy appearance. However, the strongly conventionalised framing, arrangement and directionality of a periodical newsletter realises a coherent reading, from the front cover’s title, list of contents (positioned in a box down the left side of the page) and editorial-type foreword, to the numbered pages of ‘content’ and ‘*In summary*’ on the last page (Figure 6.4). Set against a mostly black and white colour scheme, the salience afforded by the realistic brightly-coloured tablets establishes and maintains the salient theme as being ‘warfarin’. Different aspects of warfarin therapy are also given salience in the form of question headings, and this creates an interactive dimension (Bezemer & Kress, 2008), as well as the possibility for readers to ‘browse’ for answers to questions they may have (Kress & Van

Leeuwen, 2006). Neli does not provide any motivations for her choices here, but when questioned about the effectiveness of these features during the research interview, Ms Tsetando vigorously agreed “that’s what we want, I mean... at least they put, they put a vertical tab and then explain what it is, what it means and what it is, and what it can do to a person... it makes sense... the questions, it draws your attention”.

6.5.3 Modality as authorial stance: the ‘second opinion’

The credibility of a proposition is semiotically expressed in terms of modality, and signals the designer’s attitude towards the proposition in relation to the audience (Kress & Van Leeuwen, 2006). Neli’s strategy is one of academic persuasion. She draws on layout, writing and image to construct a strong authorial stance, and initially it appears as if the authoritative voice belongs to Ms Tsetando’s ‘doctor’. This assumption is inferred from the small colour image of a female figure in a white coat and stethoscope next to the cover’s title of ‘*Know your Warfarin (Coumadin®) Therapy*’ (Figure 6.1). However, Neli knows that Ms Tsetando does not trust the ‘medical space’ (Fairclough, 2013) and rejects assumptions that the doctor’s knowledge is legitimate merely on the basis of “an established and understood discursual order in which the patient and the doctor are compliant” (Dray & Papen, 2004:315).

On analysing Neli’s reflection, it becomes clear that in acknowledging Ms Tsetando’s problems with a bureaucratic and unfriendly health care system, and recognising her patients’ apparent willingness to challenge authoritative figures when needed, Neli presents her content as if it were a professional, distant and impartial ‘second opinion’ such as from a pharmaceutical company. She argues that her newsletter is meant to give the reader “the feeling that they are engaging in a question and answer session with someone who is not their doctor, someone who wants to give the information but not necessarily treat the reader” [Neli]. The ‘treating doctor’ is present but backgrounded, almost as if hovering on the side, ready to step in with her clipboard and institutionally-legitimate agenda once someone else has confirmed the facts.

The academic style of writing presents other modal resources for constructing a strong authorial stance. The simple present tense realises a ‘factual credibility’ described as “these are the basic facts” [Neli]. The syntax in the first half of the artefact (Figure 6.1 and 6.2)

constructs cause-and-effect statements, and hedging words such as ‘*can*’, ‘*may*’ and ‘*sometimes*’ are used in a discursively-appropriate way to signal the likelihood of risk. This is followed by emphatic clauses (Figure 6.3 and 6.4) that stem from these possible risks, and as such they represent a type of cause-and-effect statement that becomes difficult to contest, should one want to: because of this-or-that risk, ‘*take this medicine exactly as prescribed*’ and ‘*do not change brands*’. The emphatic tone is especially prevalent in the summary section. Each of the five points start with an instruction to ‘*tell*’, ‘*take*’ or ‘*do not*’, and is further emphasised through the striated lines of a clip-art image realising ‘*sound*’ and labelled as ‘*an alarm can help you remember*’.

Two annotated ‘scientific’ drawings (Figure 6.2) represent cause-and-effect processes, as in ‘*this picture shows how an artificial heart can replace a diseased one*’ and ‘*when blood clots...causing a heart attack*’, but the images are overly-detailed and of poor quality, and seem more valuable in terms of portraying ‘scientific-ness’ (Kress & Van Leeuwen, 2006) than in terms of their actual information. Furthermore, while the use of dialogic forms and explanations of medical discourse “make the text more reader-friendly and in so doing, reduces the gap between the institutional voice of authority and the everyday discourse of the patient” (Dray & Papen, 2004:322), this strategy simultaneously “represents the institution as an authoritative source in information provision and decision-making procedure” (Dray & Papen, 2004:322).

In negotiating tensions between an uncompromising stand on adherence and pitfalls of a ‘doctor knows best’ approach, Neli demonstrates a foundational principle of developing a therapeutic alliance with her patient: she acknowledged Ms Tsetando’s voice and the legitimacy of her experiences with both medication and medical systems (Dray & Papen, 2004). She does not ‘water down’ the serious risk that her patient faces, but respectfully offers another legitimate authority to corroborate these facts. This approach signals a respect for her patient’s autonomy preferences (Lee & Lin, 2010) while pursuing her professional agenda, which includes “favourable behaviours (e.g., adherence to a treatment plan) and affective responses (e.g., satisfaction and trust) that can lead to better health outcomes” (Ashton et al., 2003:148).

Reading the booklet during the research interview prompted an unexpected confession from Ms Tsetando: she did not ‘forget’ to take her medicine (as she had told the students) but

actively *chose* not to. Unintended nonadherence is related to capacity and resource constraints, whereas “intentional nonadherence arises from the beliefs, attitudes and expectations that influence patients’ motivation to begin and persist with the treatment regimen” (Horne et al., 2005:14). Ms Tsetando explained that

sometimes you don’t understand what the disease is all about, and what are the consequences... what is the treatment mean to you, they just tell you, you have this disease, it’s a risk, you must do this and do that, and if you don’t take this medications it’s gonna cause you harm or something... and bear in mind you are not used in taking a lot of medication as it is but now you are faced with lots of tablets in front of you, and you don’t know how to deal with it... uhm... you end up not taking it! Like, I’m talking about my experience... because what happened to me, they were just telling me you have this disease but they not stressing the facts... and you end up getting bored of taking this... and maybe there is nothing that you feel or makes you to take this medication, the only thing that you feel you get nauseous [from side effects], you feel sick, you end up not taking it, so... that’s what happened to me... then, after the first operation then I end up doing a second one in 2013 because the valve got blocked (Ms Tsetando, research interview notes).

Her confession illustrates the contrast between “education for behavioural change” (Macdonald, 1992:142) and education for the sake of empowerment (Prigge et al., 2015). Research suggests that even practitioners who provide information on patients’ medication, seldom inquire about the side effects patients experienced or barriers to adherence that they encountered (Makoul, Arntson & Schofield, 1995; Sleath et al., 1999). Just being told that something was necessary for her health was simply not enough to keep her ‘compliant’; after all, challenging the status quo when she did not feel satisfied with the answers had in the past saved her life. For her to adhere to treatment in the face of these side effects, she needed to be convinced that the benefits outweighed the challenges, and no-one had bothered to look at this context from her point of view.

Ms Tsetando was eloquent and passionate about shared knowledge and decision-making. In her opinion, patients invest a great deal of trust in doctors, but doctors are not automatically entitled to ‘blind trust’. She explains that “we have that feeling that we as patients we must trust your doctor because he’s not gonna tell you something that is not...at least 99 percent correct, you see”. However, she insists that there are times when proof of a practitioner’s credibility is considered a legitimate request. One such time is when someone is not getting better, when “They are not checking, they are just giving this medication... At least, if people can have another opinion so they can check if it’s really asthma”. Another time when ‘proof’ may be required is when patients attending clinics are being seen by medical students, who often do the clerking (history and first examination) and certain procedures:

Most of us... if I can tell you, as a patient, once a doctor comes to you, says to you, I'm a student, your world just crumbles, because you were just told, this is a student, so... so... he or she doesn't know everything. But if a doctor, if she comes up with a doctor... we trust more doctors than students, so if a doctor can come and say something, then we know that this student is telling the truth or what (Ms Tsetando, research interview notes).

Bodenheimer (2005) found that in the United States, average consultation times vary between 5 and 18 minutes. The situation is even more dire in some clinics in South Africa, especially in underserved rural areas. In overcrowded and busy settings, patients may not be aware of the extent to which students are supervised. Clinicians may experience time spent giving explanations and second opinions as a logistical frustration, whereas some patients may assign cultural value to time, equating time spent with that of showing respect (Rocque & Leanza, 2015). Seeking, valuing and addressing the patient's perspectives and preferences for autonomy are core components of patient-centred communication, and contribute significantly to reducing patients' feelings of vulnerability in the face of an alien and impersonal bio-medical culture (Rocque & Leanza, 2015).

6.5.4 Modality as social engagement: discourses of respect and responsibility

Neli's strategy for social engagement involves drawing on shared ethnic values and foregrounding not only Ms Tsetando's right to decision-making, but also her responsibility to look after her own health.

6.5.4.1 Engaging cultural sensitivity and values

Where doctors and patients share racial or ethnic characteristics, relations are more likely "characterized by greater patient participation, better communication, and higher satisfaction" (Saha et al., 2011:379). Neli draws on a shared isiXhosa ethnic identity and cultural values. She chose the newsletter because it affords an air of formality and seriousness which is culturally valued, and Ms Tsetando confirms this view. Neli explains: "I don't want it to come across as something that children can play with. I have noticed that children do not play with newspapers because they are not appealing to look at. I want the same effect for this newsletter so it is not damaged or lost easily or carelessly". Neli not only increases the credibility of her message, but also positions Ms Tsetando as a mature and serious 'consumer' of information through choosing a writing style and colours that convey a formal and respectful tone. She describes her target audience as "older people, therefore, I didn't want to use fonts and colours that are going to come across as silly. I know for my

culture (Xhosa) you must always treat an older person with respect, that doesn't mean only when they are in front of you but also when they can't see you. Hence the way I showed respect is by not putting in cartoons and by not using bright colours". The intimacy suggested through photographs of someone's body (a close view of a woman's torso turned towards tablets in her hand in Figure 6.1 and 6.3) at first seems at odds with the formal and distanced positioning, but this may be interpreted as acknowledging the patient's autonomy and experiential knowledge of her body and her medication. Cutting off the figure's head may further reduce the intimacy.

6.5.4.2 Participation as 'choosing to adhere'

The participation expected of the patient is clearly spelt out. Neli 'offers' empowering knowledge alongside demands for greater adherence: Ms Tsetando must 'take her tablets'. In the foreword (Figure 6.1), the 'editor' states that *'your doctor needs you to act as a partner in your care. Your role is to gain the necessary knowledge... and to apply it to your daily activities. The purpose of this newsletter is to empower you with knowledge'*. This balance between offer and demand is expressed even in the fact that the offered knowledge requires subscription, or 'buy-in'. The long shot of the doctor on the cover (Figure 6.1) puts Neli at a respectful distance, ready to offer more assistance, while simultaneously demanding contact through looking directly at the reader.

From Ms Tsetando's point of view, 'participation' is not the same as 'adherence'. At times, it may involve resistance, for example: she by-passed the institutional referral system when her symptoms didn't improve, she refused to keep quiet ("they told me I had to, I had to do it, I had to take it, but I told them no, I just stick to my thing") or she simply stopped taking the medication ("so I told them, maybe the dose is too much, if I take a half... and then the doctor says, no, you have to take them, like I just question his practice... I just leave it like that, that's what make me not take the tablets"). It is generally accepted that a 'competence gap' exists between patients and doctors, due to the latter's expert training. However, the patient's lived experience also represents a certain type of competence, for example, to decide "whether a drug's effects will be considered beneficial or harmful and to what degree" (Veatch, 1993:1021). By acknowledging and drawing on Ms Tsetando's experiential knowledge, Neli signals that competence is not unilateral, and shifts patient-centred health education from 'providing information' to 'sharing' or exchanging 'information' (Makoul,

Arntson & Schofield, 1995; Bleakley & Bligh, 2008). Neli's approach both validated and expanded Ms Tsetando's understanding of her own disease (the competence component of empowerment), and allowed her the opportunity to make an informed choice (the empowered person's 'need for autonomy'). This type of health education answers to the WHO definition of empowerment (Prigge et al., 2015) as well as to Robinson *et al.*'s (2008) view of 'agreement' preceding 'adherence'.

Neli's belief that knowledge leads to adherence may be somewhat naïve. There are also other reasons why patients do not take their medication, and these are often related to the broader physical world (Macdonald, 1992; Horne et al., 2005). This is further discussed in chapter 7, but is mentioned here because Ms Tsetando raised the issue. She related a story of a patient whom she met at the clinic, who had not eaten for two days because she had no food. Because her instructions stipulated 'take after meals' she did not take her tablets either. What upset Ms Tsetando most, however, was the ignorance of the care providers:

I was like shocked, you know, because... at the clinic we have a place where we can go and eat something, you know, for free, but people are not using that place because no-one is telling them that the food is for free, and here is this person, she didn't eat... (Ms Tsetando, research interview notes).

Again, the dominance of a biomedical culture can blind doctors to seeing the patient as a complete person. In a PHC curriculum, medical students should be taught that taking a personal, biopsychosocial interest in their patients extends to advocating for and contributing to creating the type of institutional culture that even feeds hungry patients when needed (Macdonald, 1992).

Another reason for non-adherence that Ms Tsetando volunteered during the interview concerns patients' psychological issues: "sometimes it's not even about the disease we have, maybe it's personal you know, and then because you are so frustrated, so stressful, it makes you not to take your medicine". When the institutional discourse embraces a more traditional biomedical culture, doctors tend to separate out and avoid psychosocial complaints:

they always...uhm... refer us to the social workers, you understand, and social worker they are here for social work, but sometimes we want to talk about what is happening to our body, about the medication you are taking, the side effects and all that stuff, I'm having a headache, so why am I having it... you need someone who knows, so each and every department they need someone that they can go to, who knows exactly what you have (Ms Tsetando, research interview notes).

Health is a social construct (Conrad & Barker, 2010) and if one values patients' participation in achieving optimal states of health, then what counts as health should be co-constructed by all parties.

6.5.5 Neli's summary

Neli's artefact can be summarised as constructing a respectful, culturally-sensitive 'voice of reason' that speaks to Ms Tsetando's identity as an empowered patient. In foregrounding a patient-centred approach to health education, Epstein and Peters argue that

decision aids, patient videos, and other media can help if they engage affect; are sensitive to default options, framing, and ordering effects; encourage deeper discussions with family members and clinicians; and strengthen healing relationships (Epstein & Peters, 2009:197).

Neli's communication behaviour therefore responds to Epstein et al.'s (2005) definition of patient-centred communication across all the domains.

Neli's notes of her interview with Ms Tsetando reflected a view of her patient which was in line with the beliefs and perspectives Ms Tsetando herself foregrounded during the research interview. It is clear from her detailed notes that Neli took an in-depth history and probed Ms Tsetando's perspectives on living with RHD. Neli's epistemic content is co-constructed alongside Ms Tsetando's experiences and needs, and her choice of content aims at forming a 'therapeutic alliance' that responds directly to the main clinical problem: the use of warfarin and the risk of blood clots. This focus seems to counteract a biopsychosocial understanding of disease, but is in fact entirely appropriate, as her artefact is meant as one 'instalment' within "a process that extends beyond any single encounter" (Richard & Lussier, 2006:214). By getting straight to the point, and drawing on Ms Tsetando's experiences with side effects and complications of non-adherence, Neli's therapeutic alliance with her patient includes a set of 'ground rules', based on mutual respect for each other's knowledge, and aimed at preventing any further deterioration in her present condition, rather than dwelling on past 'mistakes' on either side. Neli's assumptions about Ms Tsetando's prior knowledge are most likely based on assumptions regarding the information-seeking behaviour of educated people.

Neli draws on shared cultural values to form a personal bond. According to Kinnersley and Spencer “respect for others is a central domain of a patient-centred approach” (2008:1051), and cultural issues play a major role in how patients from diverse ethnic groups experience the doctor-patient interaction. Brugge et al., (2009) demonstrated a preference of ‘cultural congruence’ among patients from both lower and higher educational backgrounds, with patients citing that they found practitioners with whom they shared cultural origins to be more respectful. Neli’s respectful and serious approach to an older person from her own culture is located within their shared cultural identities as isiXhosa women, and establishes both a therapeutic doctor-patient bond and a foundation for shared decision-making.

However, it is Neli’s recognition of Ms Tsetando’s right to a second opinion which is most illuminating of her perspective on shared decision-making (Lee & Lin, 2010) and her approach to patient empowerment. Neli’s insights may be ascribed to her sensitivity to differences in cultural and micro-cultural values. It may also lie in her experience of some of the failures of the health care system. Public health care services, especially clinics, are overcrowded and under-serviced; patients often wait months for an appointment with a specialist and many others, like Ms Tsetando, are denied access to specialist services through ‘gate-keeper’ primary care staff who either misdiagnose or underestimate the seriousness of symptoms (Coovadia et al., 2009). Patients who are not satisfied with their diagnosis or treatment seldom have other options. Almost 25 years after the government adopted the PHC ‘health for all’ philosophy, the health care system with its colonial origins and entrenched hegemonic structures remains a disempowering environment. Many studies on patient-centredness suggest that “the patient’s eventual decision to take the medication seems to depend more on the trust they have in the physician’s recommendation than on a true process of shared decision-making” (Richard & Lussier, 2006:213). The deficiencies of the system, and the resulting breakdown of trust relationships, make it even more imperative that patients are empowered to resist the status quo and to participate in decision-making to the degree they wish to.

While an evaluation of the health care system per se is not the focus of this study, Ms Tsetando and most of the other interviewed patients were vocal and specific in their criticism of the quality of care and lack of information at peripheral and other clinics. Their insistence on being heard through this research is similar to that of Brugge *et al.* (2009), where interviewed patients pushed against research-imposed boundaries regarding health

communication with their provider on the one hand, and the rest of their experience with the health care system on the other.

6.6 Beyoncé's gift: enlisting the voice of family

Beyoncé's artefact comprises a pink box decorated with a folded origami heart on the lid. It contains four origami figures and a set of yellow laminated cards tied together with a ribbon (Figure 6.5). At first inspection, this artefact seems overly simplistic for someone of Ms Tsetando's advanced stage of disease and level of education. A note addressed to Ms Tsetando explains that the box is a gift and what each figure represents: an orange butterfly is Buhle, the main character in the story, the polka-dot ladybird is her friend Lumka, the green bird is Intaka and the pink lotus flower represents the clinic. In reading her short but illuminating reflection, one starts to appreciate just how much Beyoncé tried to personalise this message for her patient.



Figure 6.5: Beyoncé's gift box and origami figures

6.6.1 Selecting and representing RHD information: knowledge as 'my story'

The selected RHD information is presented as a story printed on the yellow cards. The information takes the form of a written narrative, with the origami figures meant to 'enact'

Buhle's journey with RHD. This design opens possibilities for meaning that go beyond traditional health education. Shroyer suggests that narratives can

by virtue of their structure, create affordances and obstacles to social action. In other words, narratives can make some things hard to say and other things easy to relate, and... this has important social consequences (2012:2).

This narrative starts with a short 'history' explaining that Buhle the butterfly had a sore throat which damaged her heart, requiring painful monthly injections at the clinic. One day on her way to the clinic, Buhle meets up with her friend Lumka, and the two go off to play instead. On their journey, they meet a lonely, stranded bird called Intaka, who is unable to play or fly, and it is this sad reality that convinces Buhle to adhere to her injections, no matter what. The story ends on a positive, happy note, with Buhle expressing regret at her disobedience and Lumka pledging support for Buhle so she can '*live a long and happy life*'. The narrative is delivered in simple plain words and short sentences, suitable for a mother reading to her small child. There are no images in the story, as playing along with the origami figures provides the visual narrative. It is possible that the animal types were chosen because of conventionalised associations, for example, butterflies are beautiful but flighty and short-lived, ladybirds may be thought of as 'the gardener's friend' and birds are thought of as 'free' and unfettered. Even the choice of lotus flower is interesting; they generally infer medicinal and spiritual meanings across different cultures. However, Beyoncé does not assign these symbolic meanings in her reflection.

Beyoncé describes her text-type and content as being "suitable for parents and their children". At first look, this artefact seems to be aimed at children with rheumatic fever, which would legitimise the use of 'fun' elements like folded animals and bright colours and simplistic information about penicillin. This first impression also seems plausible because Ms Tsetando is not on penicillin anymore and has advanced valve disease; in other words, the information offered in this health education encounter does not seem relevant or useful. Ms Tsetando also had no recollection of being sick as a child, and her own children did not have rheumatic fever. However, Beyoncé addresses Ms Tsetando directly in the note, indicating that "I made this storybook box for you after we spoke about your rheumatic heart disease". Beyoncé's reflection explains that the story of Buhle is not about children or penicillin, but about adherence to medication "even when you don't feel like it, or when the side effects are terrible, or when distractions lead you astray". What counts as knowledge

has thus been realised as a ‘symbolic representation’ or allegory, where Beyoncé’s epistemic choices express truths about human existence “by means of symbolic fictional figures and actions” (Merriam-webster.com, 2016).

Like Neli and Nosipho, Beyoncé assumed that Ms Tsetando already had adequate information about rheumatic heart disease. While admitting to being perplexed, she offers no speculation on why Ms Tsetando remains non-adherent. Instead, she formulates a strategy that she describes as aiming for “her heart rather than her head”. Ms Tsetando has close ties to her family and loved play-time with her children. She also counselled people in her community who were HIV positive. Therefore, the contents of the gift box seem designed for achieving two goals: firstly, by creating pretty paper animals that she hoped Ms Tsetando’s young children would find interesting, she aimed to insert her message into ‘shared family time’. This would create “an opportunity for her patient to share about her own disease”. During play, the origami figures would animate the story, lifting the facts out from the cards and ‘bringing the narrative to life’. Secondly, play-acting sets Ms Tsetando up to ‘voice’ Buhle and Intaka’s different fates. Beyoncé hoped to trigger the realisation that “if she did not take her medicine, it would affect her children negatively”. This strategy aims to recruit Ms Tsetando’s values and sense of responsibility as a mother and caregiver.

6.6.2 Organising information

The coherence of a text depends on the degree to which organisational resources construct and foreground a message through semiotic arrangement, directionality and salience markers (Bezemer & Kress, 2008). In Beyoncé’s artefact, all the components of the box (the origami participants, story cards and note) are linked to the central story and theme: taking one’s medication takes priority. The reading path on each card is linear, there are no headings or images that detract and the order of the cards are fixed. The brightly-coloured, three-dimensional origami figures signal the potential for a more dialogic and interactive ‘reading’, by embellishing the story with characters’ own words or even interweaving other plot lines. In other words, the storyteller and audience can adapt and enact the story in relation to their own cultural or social conventions, for example, through specific cultural forms of address, but there is still only one ‘ending’. Ms Tsetando did not really care much for the animals, but appreciated the artefact’s simplicity, saying it was “very good, very

good, because it is easy English, I can read it and make sense out of it”. She also thought that the story would be particularly accessible for other, less educated patients with RHD.

6.6.3 Modality as authorial stance: the credibility of ‘lived experience’

A semiotic approach sees stance terms of constructing high or low modality in relation to the audience (Kress & Van Leeuwen, 2006). Beyoncé realises stance and engagement in a novel way: she draws on Ms Tsetando’s lived experience as ‘what counts as evidence’ while at the same time utilising Ms Tsetando’s own ‘voice’ as expert (Hyland, 2005). Buhle’s journey is written in the present tense in a conversational style, and apart from the last sentence (*‘...and she never missed another clinic visit again!’*) contains few emphatic markers. The figures not only introduce choice but also playfulness. Beyoncé’s artefact is a children’s game aimed at an adult reader, and if analysis depended solely on a semiotic reading of the artefact, it could be considered as signalling low credibility or modality. This seemed initially the case as Ms Tsetando was quite dismissive of the figures and merely glanced at the note.

However, after a few minutes of reading the cards, she started smiling and chuckled occasionally, muttering at one stage under her breath “it’s very sore...”. On finishing it, she laughed out loud and proclaimed: “(i)t’s ... it’s my story, most of the things that happened to me”. Beyoncé’s strategy tapped into the one area that would give credibility to her message: Ms Tsetando’s own journey of nonadherence. Ms Tsetando’s own experiences are ‘what counts as knowledge’ and the ‘author’s voice’ is her own:

When you tell people stories, a story that they are related to, even if they are not... I mean, ya ya they are talking about the butterflies and all this stuff, but what draws me, I didn’t know that if I am not using the penicillin, like, because I was at first like the butterfly moving around, ignore the tablet and all that stuff, but it draws the attention where you see someone else that is in the same condition as you, and is not using it, and you see the effects of not using the drug, you see... so, it really draws your attention (Ms Tsetando, research interview notes).

Read separate from Ms Tsetando’s experiences, the artefact is just a children’s story; in drawing on Ms Tsetando’s own experience of the consequences, it becomes a powerful step-by-step narrative in co-constructing RHD knowledge.

Another astounding revelation is that, prior to reading it here, Ms Tsetando did not understand why she had to take penicillin. The gift box was the first of the stimulus texts

used in the research interview, and she was incredulous to discover this piece of information and its significance, even though her penicillin regimen was stopped years ago: “You know, I did not know about this... uh... penicillin injection, but I just had this very sore thing, and if I knew that it’s more to do with my heart being further damaged, I think I could have taken it”. She also made a connection between her nonadherence with the penicillin and needing a second valve repair: “as a person who had... um... issues about this penicillin thing... if I really took it, maybe I could even wait for the second operation”. In other words, the knowledge gained here went beyond the topic of penicillin, and afforded ‘critical health literacy’ (Nutbeam, 2000).

6.6.4 Modality as social engagement: an invitation to active participation

Hyland (2005) suggests that writers balance their message against expectations regarding the audience. Creating an artefact essentially allows the students to ‘project’ a certain (patient-centred) view of their patients and to construct the degree of participation that they would like to see. Beyoncé’s interactive artefact invites rather than demands active participation. Whereas Neli’s newsletter was aimed at a ‘subscriber’, the story-box is offered as a gift, inviting Ms Tsetando to read along, as if offering a glimpse into ‘someone’ else’s journey, and to play along with the figures as an optional feature. Using an allegory creates a degree of social distancing that sidesteps the need to castigate Ms Tsetando for her nonadherence. The absence of any ‘medicalised discourse’ in layout, writing and visual modes further disconnects the issue of adherence from biomedical culture and forms of dominance. Instead, it foregrounds the value of supportive family and personal relationships, and draws equal attention to Ms Tsetando’s rights to choose and her responsibility for her own health.

Ms Tsetando acknowledged this dichotomy, insisting that her resistance had paid off in being offered an alternative to painful injections: “... ya, but I end up like fighting, the fact that I must take up the injection but then can change to tablets!” Ms Tsetando was aware of Beyoncé’s strategy, explaining that “I think they want to show me the importance of taking the medication, uhm... it’s very important for a person just to take care of yourself before anything worse happens”. Beyoncé’s strategy demonstrates the significance of choosing a ‘moral order’ (Bernstein, 2000) that is appropriate to specific learners and settings.

6.6.5 Beyoncé's summary

Beyoncé's use of allegory and play constructs both 'biomedical distance' and respect for patients' experiential knowledge and identities as members of other micro-cultures. The artefact's core message rises above the constraints of its pharmacological content (penicillin treatment) to give voice to the more fundamental issue of adherence. Along with Neli and Nosipho, she had taken the kind of history that helped her to 'see' Ms Tsetando beyond the narrow requirements of adherence. Her communication behaviour responds to Epstein's definition of patient-centred communication in demonstrating a biopsychosocial perspective of the illness, by respecting Ms Tsetando's perspectives and by developing a shared therapeutic alliance that invites participation. Ms Tsetando is drawn into an alliance by using Intaka the sick bird as a 'second opinion'. However, after receiving this information it is still Buhle's decision that counts, and this foregrounding of choice and responsibility shows a respect for her patient's autonomy preferences (Lee & Lin, 2010). Both Neli's and Beyoncé's artefacts support the suggestion that "increased use of the lifeworld makes for better outcomes and more humane treatment of patients as unique human beings" (Barry et al., 2001:487) and draw attention to the potential of bio-medical culture to 'disconnect' patients and 'discredit' the voice of their health practitioners. Mrs Tsetando's social identity as the family's mother and primary care-giver represents a specific micro-culture or value set, which Beyoncé appropriates in an effort to counter the culture of medical hegemony that she believes is affecting her patient's adherence.

6.7 Nosipho's minimag: enlisting the 'voice of the media'

The third student who interviewed Ms Tsetando is Nosipho, who created a "minimag that incorporated all of (Ms Tsetando's) interests". Nosipho compares her booklet to the 'Drum', a popular South African magazine which claims the sixth largest consumer readership in Africa and features current news, sport, relationship advice, celebrity news and issues relevant to urban black culture (DRUM, 2016). Drum magazine was established in South Africa in the 1950s soon after apartheid became national policy, and became

an important platform for a new generation of writers and photographers who changed the way Black people were represented in society... Still focused on providing relevant content for Black South Africans, *Drum* is considered part of every black South African's daily life (Sahistory.org.za, 2016).

6.7.1 Selecting and representing RHD information: meaningful or 'gossip'?

Consumer publications aimed at women often feature a diverse mix of content that may include celebrity gossip, recipes, horoscopes and activities aimed at children, such as a cartoon section. Nosipho's mini-mag appropriates these conventionalised genres to convey a message of drug adherence. The minimag 'claim' is evidenced through the layout of the front page, which features the magazine name '*Drug 411*', and conventionalised phrasing as in '*Penicillin: How? Where? When?*', '*scoop*', '*special*' and '*Post Rheumatic Fever Prophylaxis Issue*'. The front page (Figure 6.6) also sports two images of black women (signalling its target audience) and a bar code (signalling its consumerist identity).

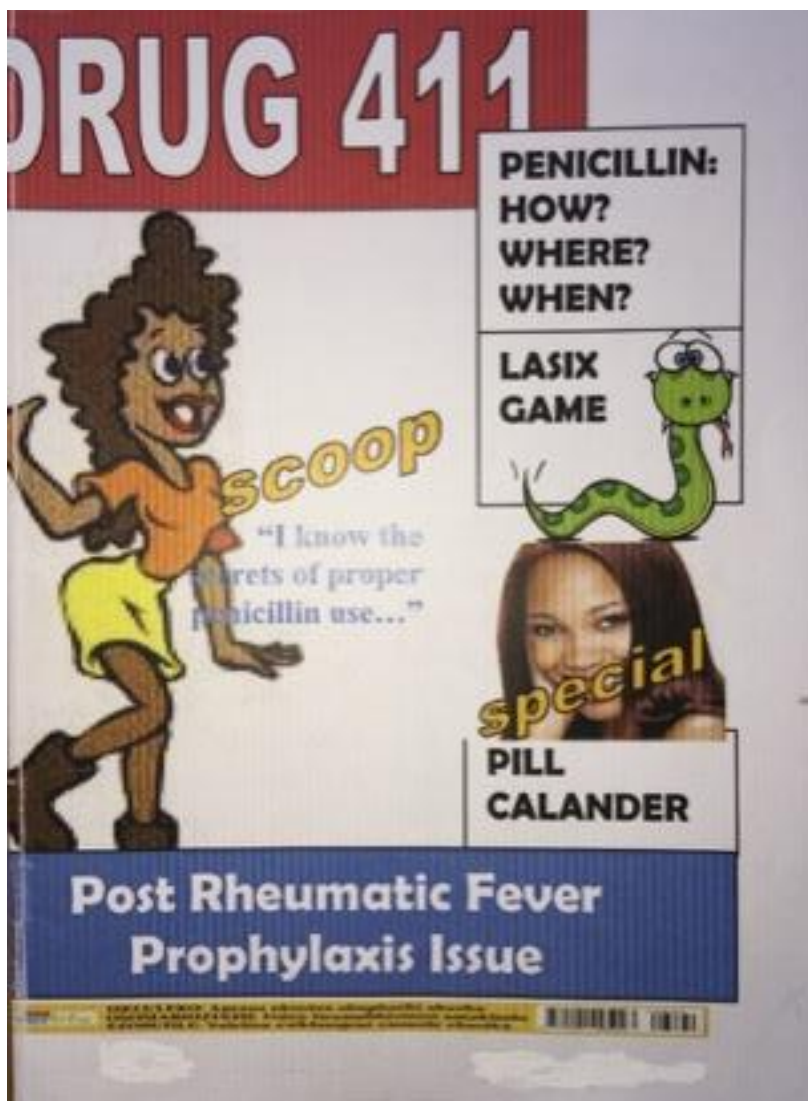


Figure 6.6: Nosipho's minimag front cover

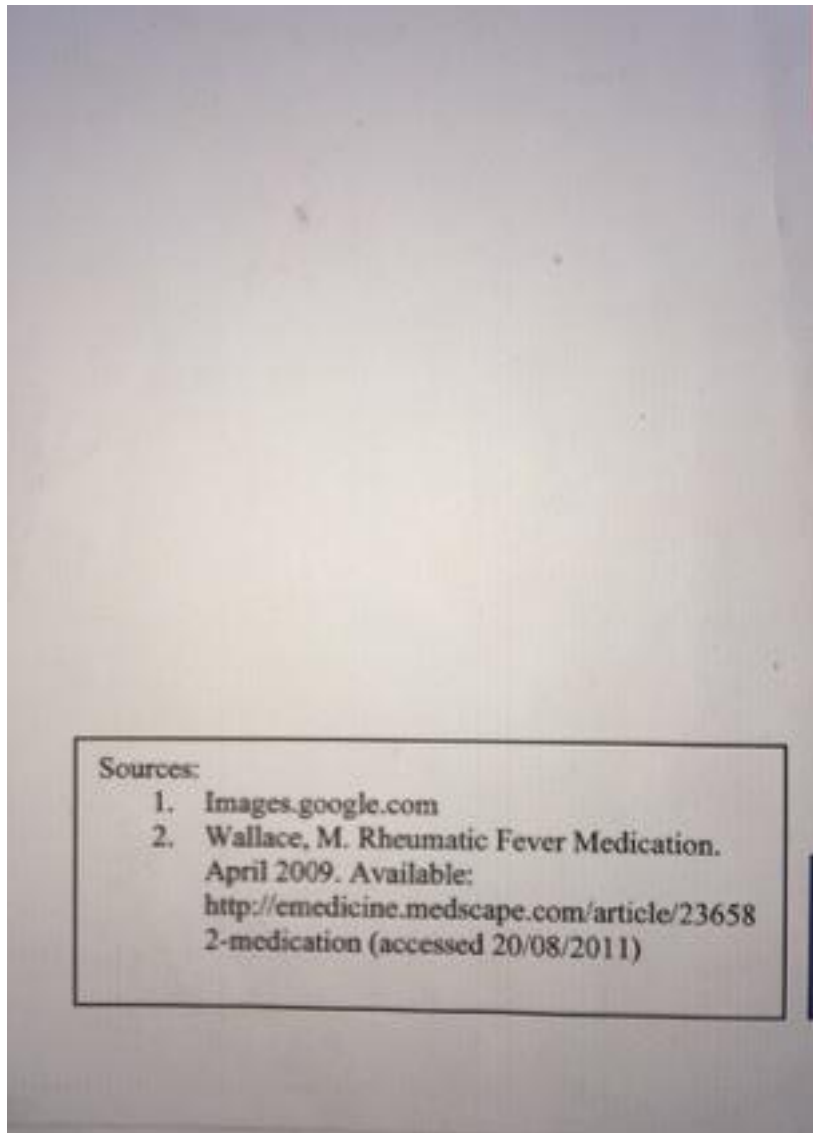



Figure 6.7: Nosipho's minimag back cover

<p>CONTENTS</p> <ol style="list-style-type: none"> 1. WHAT IS PENICILLIN 2. ADVERT 3. WHAT IS LASIX 4. CALENDER 5. SNAKES AND LADDERS 	<p>PENICILLIN The penicillin injections which are taken every month are used for "Secondary prevention". This means that you don't have the throat infection at the time, but medicine (penicillin) is needed to help prevent any infection from happening again. This is because people who have had rheumatic fever in the past, can get it again more easily and this may damage the heart more.</p> <p>Let's say the infection is a burglar, if a burglar came into your house once, he knows that he can come in again because your doors are always unlocked. To prevent that, you decide to lock your door. You know you can't just lock it once, you have to lock it each time you go out, when you are at risk. In the same way you have to protect your heart (use penicillin) each time you are at risk (every 3-4 weeks) to prevent the infection from coming in.</p>
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Figure 6.8: Nosipho's minimag: table of contents and page 1



PENICILLIN

SAVES LIVES!!

HOW:
The doctor injects a single injection into the muscle, just under the skin injection every 4 weeks

WHEN:
This is Done every 3-4 weeks

FOR HOW LONG:

Patent without proven cardiacs	For 5 years after the last attack, or until 18 years of age (whichever is longer).
Patent with cardiacs (rheumatic mitral regurgitation or treated cardiacs)	For 10 years after the last attack, or at least until 25 years of age (whichever is longer).
More severe valvular disease	Life-long
After valve surgery	Life-long

DON'T MISS YOUR APPOINTMENT

PROPHYLAXIS FOR PATIENTS WITH A HISTORY OF RHEUMATIC FEVER

DIURETICS. I.E. LASIX

Lasix is a diuretic or "water pill". This acts by getting rid of the extra 'water' in the body so that the heart doesn't have to work as hard to pump it around the body. This allows your heart to rest and only use up the energy it needs to keep your body working properly.

Figure 6.9: Minimag page 2 and 3

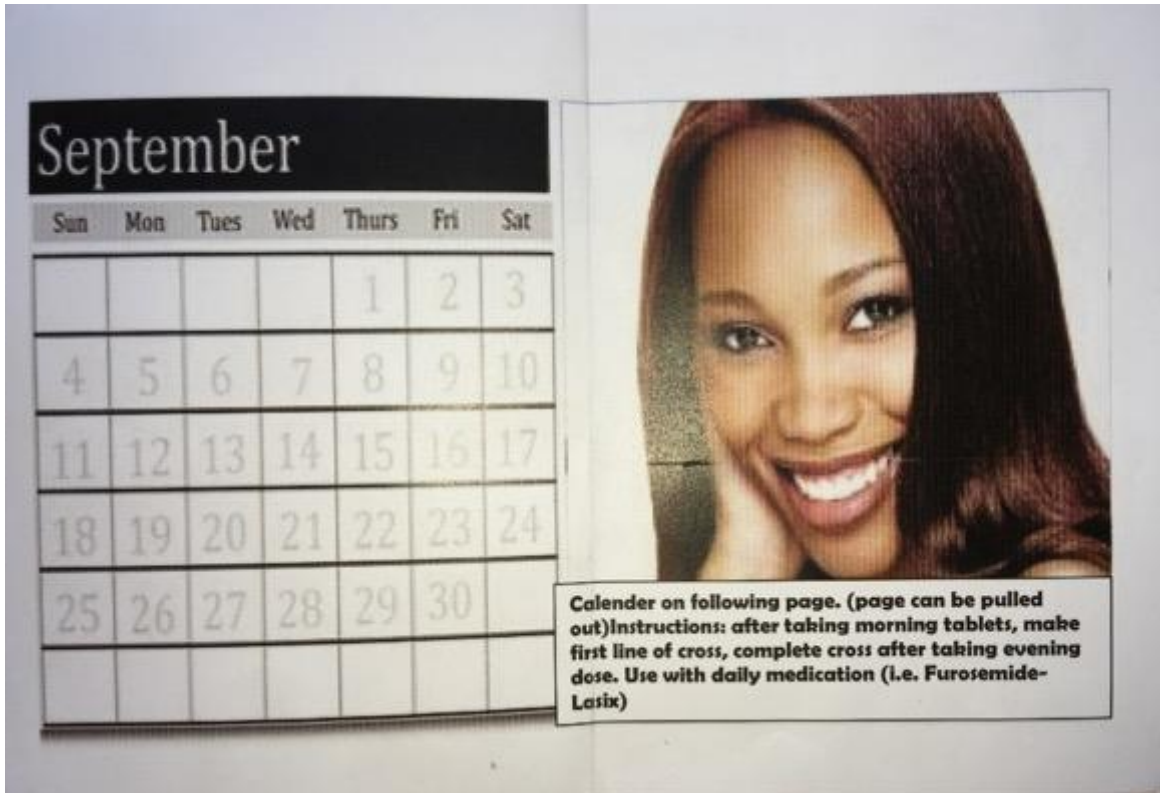


Figure 6.10: Minimag page 4 and 5

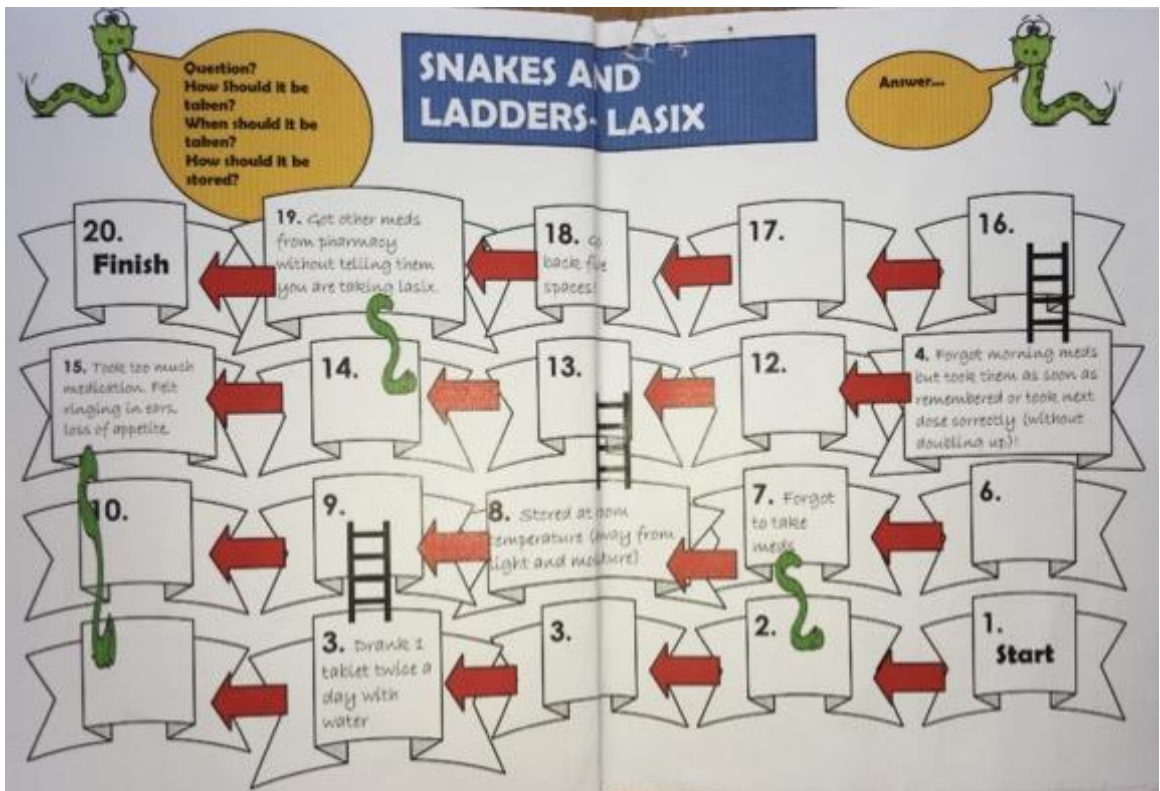


Figure 6.11: Minimag page 6 and 7

Despite its busy appearance, the artefact contains very little information on RHD and coherence relies on the patient having prior knowledge of the link between a sore throat, rheumatic fever and the heart. Page 1 (Figure 6.8) features a written piece on penicillin injections and page 3 (Figure 6.9) features '*Diuretics, i.e. Lasix*'. Both are written in a conversational, 'ordinary' style (Fairclough, 1992; 2000) using simple wording and sentences. '*Penicillin*' is explained through a written metaphor as a 'burglar' entering your house; locking the door refers to consistent adherence, '*to prevent the infection from coming in*'. This is somewhat strange, as one would expect the infection to be a 'burglar' rather than the penicillin. Page 2 (Figure 6.9) follows a question and answer format, illustrated with a cartoon-and-speech bubble image of two women 'gossiping', proclaiming '*I know the secrets to proper penicillin use...*'. Nosipho motivates this strategy as drawing on the drama and 'gossip culture' of the soap operas that Ms Tsetando likes to watch. Page 4 (Figure 6.10) features a calendar. Page 5 features a black celebrity and instructions on using the calendar as a medication reminder. Page 6 and 7 (Figure 6.11) feature a snakes and ladders game, with snakes punishing for drug infringements ('*forgot to take meds*') and ladders rewarding ('*took the next dose correctly without doubling up!*').

Like the other two students, Nosipho's core message is about adherence to drugs, but Ms Tsetando did not find her content useful. She remarked that she already knew that Lasix was a 'water pill' because of her own experience; "I didn't know at first, but when I took this stuff, I go to the toilet little bit every five minutes, so I went to the clinic and tell them, that's where I found out these were water tablets, just take off excess water". She similarly dismissed all the other information in the minimag, for example, in her comment regarding the penicillin prophylaxis: "then my question is: so what?". She had also worked out on her own how to best integrate her medication into her complicated daily work and travel schedule, and felt that "for me it's not gonna work...if I can use this [pointing at calendar] it's gonna be a mess". Dray and Papen (2004) suggest that this type of simplicity reifies a 'discourse of deficit', in that it represents the patient as being someone who is unable to deal with health information. In other words, Ms Tsetando dismissed the artefact not only because it represents an overly simplistic version of RHD, but also because she actively rejects the way it portrays her (Dray & Papen, 2004).

6.7.2 Organising information

Of course, it may not only be the lack of relevant information that is problematic, but also how it is organised. Coherence in pedagogic texts is achieved when it ‘makes sense’, and is augmented by the structural organisation of information, through the placing of elements, foregrounding of salient aspects and preferred reading paths (Bezemer & Kress, 2008). Although Nosipho justifies her design based on popular magazines, the different frames and mixing of genres seem disjointed and somewhat clumsy; it is difficult to pick out what is more salient and how different text types are connected. As a health education tool, the minimag lacks coherence from a design perspective and has too little substance from an epistemic perspective.

6.7.3 Modality as authorial stance: how to lose credibility

The value of information depends on what counts as evidence of credibility and to what extent the author is ‘credible’ (Hyland 2005). Nosipho’s artefact constructs ‘the wrong type of voice’ for this message. On a line-by-line level, it seems as if Nosipho takes an emphatic stance on drug adherence, but the overall message is lost. The emphatic markers on page 2 bely the conversational style of her ‘articles’ on page 1 and 3, and phrases like ‘*High risk*’, ‘*Saves lives*’ and ‘*Instructions*’ seem inappropriate next to the calendar and model. Graphic resources constructing high modality include the double exclamation marks and bold black capital letters of ‘*Don’t miss your appointment*’. The spiky yellow shape is also a type of visual ‘exclamation mark’, as it is semiotically associated with ‘sale’ or ‘shock’. The snakes and ladders game is a children’s game but is recruited to assign high modality by judging actions as being ‘good’ or ‘bad’. The mixed message continues on the last page (Figure 6.8) which lists the ‘*sources*’ used in the making of the artefact as ‘*Images.google.com*’ and an online medical article on rheumatic fever. These sources are numbered and listed and reminds of citing and referencing in academic writing. It may have been included to invoke authorial presence, or to signal awareness of copyrighting rules.

The result of all this mixing is that the message lacks credibility. Nosipho jumps between discourses, mixing public and academic writing conventions and entrusting the message of adherence to ‘girl gossip’ (page 2, Figure 6.9) and children’s games (page 6 and 7, Figure 6.11). In line with the genre, Nosipho does not use self-mention in her writing and, except for a reminder to ‘*contact your doctor for more info*’, the medical discourse is conspicuously

absent. However, her efforts to claim “the culturally prized virtue of being ordinary” (Fairclough, 2000:175) in order to enlist support from this ‘everyday community’ means that her voice is not convincing and her advice not valued.

When Ms Tsetando was shown this artefact, she skip-read through it and had to be directed by the researcher to look at specific aspects. Ms Tsetando explained that medical advice in magazines were not prized in her culture; patients preferred face to face contact over reading: “and also for our culture, you know sister if you can agree with, even if we buy magazines we don’t read, we just look at the pictures [interpreter nods] ... our culture also plays a role, even in terms of pamphlets and booklets, even if it’s there, you find children playing with it”. The focus is then on the spoken interaction and not on the writing: “the nurse who is talking to us, we just look at the picture, we just ignore the word, we just talk about it, trying to explain”.

However, while Ms Tsetando said that she dismissed the minimag on the ground of cultural preferences related to an ‘oral tradition’, she nevertheless spent a long time reading the warfarin booklet without being prompted. This discrepancy can be explained by understanding where and in whom associations of credibility are located. Ms Tsetando associated the serious style of the warfarin newsletter with expert authority, and the information it contained also both validated and expanded her own ‘expertise’ related to warfarin. Similarly, Buhle’s story (even though it was a child’s story) was credible because of its association with her own experience with RHD; Ms Tsetando said that “I liked the first story because I just dropped myself into the story, of what was happening”. In contrast, she associates the cheap minimag genre with entertainment, which constructs low modality in relation to medical information: “when I took this, I just went to this picture [points at picture of soap opera star on calendar] because I knew her from television...”.

In general, other RHD artefacts that enlisted popular culture of newspapers and magazines lacked overall credibility among interviewed patients. This lack of credibility was not evident during the pilot study, where students designed ‘minimags’ on the topic of contraception (Weiss, 2014). A likely explanation is that certain populist media genres originate from and sustain micro-cultures that encourage pushing against social taboos, such as with sexual health, but this mandate does not necessarily extend to other ‘medical’ topics. The various artefacts made for Ms Tsetando demonstrate that the ‘architecture’ of a text’

(Fairclough, 1992) is made up of ‘social rules’ that help to maintain its coherence. In other words, the text ‘makes sense’ because it ‘feels credible’ within its micro-cultural context. Drum magazine’s history and position in “every black South African’s daily life” (Sahistory.org.za, 2016) may afford street and even struggle credentials, but Ms Tsetando’s struggle with her disease is not essentially about being black; it’s about being a patient with RHD in a post-apartheid institutional culture (Coovadia et al., 2009).

6.7.4 Modality as social engagement: ‘browsing’ for information

Resources that construct stance and engagement often overlap (Hyland, 2005). Since adherence is a main concern in health education, positioning participants to assign roles and responsibilities is an important theme. Nosipho’s minimag constructs a type of ‘group solidarity’, in that the text type is a public space but incorporates elements related to close friendships, such as ‘gossip’ and ‘secrets’. This mixture of public and personal is also seen in the images: the cartoon figures (Figure 6.9) represented in a distance shot but are engaged in the act of sharing a secret. The photograph of the celebrity (Figure 6.10) is a close shot, suitable for “conversations of a more personal nature” (Björkqvall, 2011:249) but at the same time she is a public figure. The effect of these resource choices is to position the magazine as a friend whom you can trust. This is also by the writing, as in ‘*I know the secrets...*’ and ‘*tell me, tell me...*’. The layout and interactive text types create opportunities for engagement as ‘window-shopping’ or ‘browsing’ for information. Written information is mostly ‘on offer’, with the only demand on page 2) (*‘don’t miss your appointment’*). The photo of the celebrity represents a demand gaze (Kress & Van Leeuwen, 2006) as she seems to look directly at the reader, but her coy smile belies any imperative other than looking *at* her.

Like the other students, Nosipho’s choice of artefact responds to Ms Tsetando’s distrust of the health care system and her partiality to a second opinion. She attempts to reach her patient through (what she believes to be) culturally-significant voices while maintaining that her patient is “allowed to either accept or reject the advise” (sic). According to Nosipho’s reflection, “the power relation between reader and designer is that of equals” and her artefact is “merely informative and non paternalistic”. Unfortunately, in her attempts to respect Ms Tsetando’s autonomy preferences, she does not construct a credible expert ‘voice’. The minimag is not to be trusted as an authority in this context, and as with the origami animals,

the minimag gets only a few cursory glances from Ms Tsetando. Culture is thus seen not only in what people say they prefer, but also in what they reject or ignore.

6.7.5 Nosipho's summary

Even though Nosipho's artefact failed to engage Ms Tsetando's interest, it still demonstrates her awareness of taking a biopsychosocial approach to illness and health education. It also demonstrates that she respects Ms Tsetando's perspectives and resistance of biomedical hegemony. Nosipho had tried (at least from her point of view) to bond with Ms Tsetando and establish a therapeutic alliance. Even though she appears uncomfortable with exercising her own authority, she shows that she respects Ms Tsetando's autonomy preferences. Unfortunately, her artefact failed to connect with Ms Tsetando on both the epistemic and relational counts: the content was irrelevant to her needs, superficial and unfocused. The voices and discourses which she drew on were not culturally valued, and may instead have come across as patronising. In trying to avoid issues around a doctor's authority and handling of power (Nimmon & Stenfors-Hayes, 2016), her message lost its credibility. Nosipho's artefact is interesting because it highlights the complex nature of cultural and micro-cultural communication, and shows that clashes may and sometimes do occur between more traditional cultural values and those popularised as part of 'urban' culture. As a young black woman in post-apartheid South Africa, Nosipho shares a certain history with Ms Tsetando, but their generational gap and respective identities within other 'small groups' result in a type of health artefact that was less relevant to Ms Tsetando.

6.8 Conclusion

This chapter focuses on how students' communication is influenced by membership of different cultural, micro-cultural and social identity groups. All three students recognised that medical discourses had been responsible for disempowering their patients, and they tried in different ways to recruit other voices that they thought would carry more weight. Their responses are interesting because this is not something that would have been taught or even discussed in classroom-based learning on patient-centred care. Even though none of the students articulated it as such, the absence of language and cognitive barriers foregrounded the agency of their patient. They understood that sometimes, patients simply 'push back' when they are made to feel vulnerable, and their nonadherence is in fact a form of resistance (Dray & Papen, 2004). Feelings of helplessness are not necessarily restricted to patients who

are poor or uneducated. A more explicit focus may be needed to counter hegemonic insensitivity and unintended disregard of patients' values and rights (Beagan, 2000). Perceptions of cross-cultural disrespect may be exaggerated by the dominance of medical discourse and by the time constraints that limit patients' information-seeking behaviour and their opportunities to negotiate a shared understanding and participation (Bodenheimer, 2005).

The chapter also suggests that epistemic aspects about a patient's disease or medication are important, but only to the point where it contributes to reaching a shared understanding of the problem and its management (Mead & Bower, 2000). It is not about the knowledge *per se*, but to what extent it empowers the patient to make informed choices. In the previous chapter, it was clear that knowing how RHD developed did not make any difference to Ms Plaka. This chapter demonstrates that while Neli's warfarin newsletter and Beyoncé's story box cannot be compared in terms of information content, both contributed significantly to empowering Ms Tsetando regarding adherence behaviour. It also shows how patients' knowledge gaps can become more difficult to identify as they learn the 'lingo' of the disease. However, in comparing health information given for new prescriptions compared to chronic medication, research suggests that clinicians are less, rather than more likely to revisit aspects of medication information in subsequent visits (Scherwitz et al., 1985).

This analysis foregrounds the difference between patients' values and institutional culture. A more nuanced view of patient-centred communication as 'informed flexibility' includes sensitivity to values-based resistance in different contexts, regardless of patients' perceived status (Rocque & Leanza, 2015), knowing when to give voice to other life-worlds during communication (Barry et al., 2001) and knowing how to handle power in a way that respects patients' autonomy preferences (Nimmon & Stenfors-Hayes, 2016). This analysis also reminds us that patients have a voice, and that "[e]ssentially, the patient is the sole determinant of patient-centeredness" (Robinson et al., 2008:603). In Ms Tsetando's opinion, the most effective and empowering health education occurs in a face-to-face encounter between patient and expert authority, where opportunities exist for asking questions and challenging the status quo. Her expectations certainly seem reasonable and doable on an individual basis. To what extent this approach is feasible on the clinical platform is debatable, as it "would require attention to structural aspects of the healthcare system to enable doctors to work fully within the patient-centred model" (Barry et al., 2001:487).

CHAPTER SEVEN

Socio-economic challenges: ‘giving up’

7.1 Overview of chapter

This chapter is set against the background of ‘social discordance’. The concept refers to ‘difference’ in terms of the social identities of doctors and their patients, for example with respect to race, gender, age, level of education and socio-economic status (Cooper & Powe, 2004). This chapter outlines some of the socio-economic challenges that impact on health care in South Africa. Bonga’s medical and personal history is presented to provide the context for Alexa and John’s semiotic choices. The chapter shows foregrounds the devastating consequences of growing up with RHD and shows how the students responded to societal ‘lifeworld’ challenges related to health education and their patient’s ability to adhere to treatment.

7.2 Background

Rheumatic heart disease has been virtually eradicated in western societies (Omokhodion, 2006), but remains a significant problem in sub-Saharan Africa and other developing nations, where “other factors are clearly important in a context of poverty and unequal health distribution” (Penn, Watermeyer & Evans, 2011:316). These are ‘lifeworld factors’, such as stigma, different levels of family and work responsibilities and support, difficulty in accessing clinics and even food security. The impact of these challenges on medication adherence is real, as seen with the patient who would not take tablets labelled ‘after food’ because he had not eaten for two days (chapter 6). These issues are the ‘sociocultural forces’ (Pasick, 2009) that shape people’s day-to-day experiences and affect their health and their behavioural response to ill health. Illness “constellates a whole network of meanings for the sufferer – social, emotional, psychological” (Crawford, 1999:31).

Because of South Africa’s political history, there are wide gaps between the lived experience of many medical students, who represent a privileged intellectual and social elite, and the patients they care for in public hospitals, who are black and often from poor and marginalized communities (Coovadia et al., 2009). Rather than foregrounding race and ethnicity, this chapter explores the students’ communication behaviour against ‘socio-

economic difference' as a legacy of apartheid. When these students account for lifeworld factors in instances of nonadherence, traditional medical views of illness are challenged, and students must engage with the patient's lived experience on some level. Social discordance in doctor-patient interaction, especially when occurring at multiple levels, is also associated with communication difficulties that can affect the quality of health care (Thornton et al., 2011; Verlinde et al., 2012).

In this chapter, two fourth-year medical students, Alexa and John, grapple with these broader socio-economic issues affecting their patient's willingness and ability to 'be compliant'. Their artefacts were made for a teenager named Bonga, who is poor and relatively poorly-educated. Students' artefacts are interrogated in relation to their reflections and to Bonga's own perspectives during the research interview.

7.3 Bonga's story

Bonga¹ Makoane was a 17-year-old isiXhosa boy when he was interviewed by the two students at the outpatients' clinic he was attending. Bonga had grown up in the Eastern Cape, living with his parents and two sisters in a rural village. When he was 7 years old, his mother took him to the local clinic because of persistent vomiting, from where he was referred to a larger regional hospital, diagnosed with RHD and valve damage, and put on daily penicillin and other tablets. His disease had a catastrophic impact on his childhood development, in terms of his education, his family life and socialization into a community of peers. He struggled with schoolwork almost from the start because he often missed class, not only because of bouts of rheumatic fever and regular clinic visits, but also because his heart struggled to cope with the twice-daily 7km walk between his village and school. Even though he experienced social stigmatisation from an early age, he felt supported and socially included at home, reporting that "even when we are washing clothes, we wash together clothes".

¹ Students used a more formal form of address with Ms Plaka and Ms Tsetando because they are older, married women, whereas Bonga is considered a teenager and was called by his first name.

However, outside of his family circle he was laughed at and teased to the point where he isolated himself. He remembers

when I was going to play with my friends, they say “no, don’t play rough; if you hit him in the chest...”. They think there is something wrong, all those funny things, so I just decided that I must just stay home and not play with other guys and that other friend of mine (Bonga, research interview notes).

At the tender age of nine, his parents sent him to live in Cape Town with an aunt so that he could undergo valve repair surgery and continue treatment at a highly-specialized tertiary paediatric centre. Home was a one-roomed shack in a local township that was already occupied by five people. There was no one to look after him there; his aunt had three other children and piecemeal jobs three days a week. Money was scarce, and at times there was no way of paying for his transport. Also, if no older person was available to accompany him or if they only had enough for one fare, Bonga had to miss his clinic visits or travel on his own to the hospital by taxi. To make matters worse, he had no-one who shared the responsibility of reminding him to take his tablets, and he often forgot.

At the time of his interview with the students, he was seventeen years old, had moved out from his aunt’s and was living in a shack with his fourteen-year old sister. His parents were still in the Eastern Cape, and despite being ill, he also had to be a parent to his sister. He described this to the students as being “very stressful” as he also still wanted to go to school and be “a normal teenager”. After his surgery, he could play some sport, which he loved, but he still felt ostracized at school. Even though his absence from school was ‘legitimate’, being ‘different’ was a big issue for him, and he tried to hide the reason for not attending class from his peers. During the research interview, he explained that

if I go to the clinic every time I come with the paper [the sick certificate from the clinic], I am coming to the paper to my class teachers, so the students they gonna ask: “where were you yesterday, we wrote a test?” I say “no, I was in the clinic”. They gonna say, laughing at me, “always in the clinic, always to the clinic”, so I say “no, let me just give my teacher when he goes out the paper”. It was like that (Bonga, research interview notes).

By his own admission, Bonga missed many of his appointments and often did not take his tablets, which on institutional terms labels him as ‘non-adherent’ and a ‘defaulter’.

7.4 Overview of students' respective approaches

As senior medical students, both Alexa and John understand the deadly consequences should Bonga's disease progress any further. For this reason, adherence to his treatment plan is an important concern for them. Alexa and John started medical training after the introduction of the new PHC curriculum, which teaches explicitly that health status is affected by "different social, economic and environmental circumstances of individuals and populations" (Nutbeam, 2000:260). Their Public Health rotation would have taught them that social determinants of health are 'easy to observe' but 'difficult to act upon', and require not only education of individuals within communities, but also social mobilisation of communities and interest groups and advocacy at governmental level (Macdonald, 1992; Nutbeam, 2000).

While both artefacts were aimed at providing individual, personalised patient-centred health education, Alexa's artefact places her within this wider view of health promotion. Her content selection and interpersonal relations reflect a desire to educate Bonga and encourage him to become an activist in his own community, but she does not realise the extent to which they inhabit different worlds, both in terms of their own social experiences and the degree to which they can leverage power in their respective circumstances. John's artefact seems to reflect a traditional biomedical position by avoiding difficult psychosocial issues. However, his reflection shows his awareness of social determinants of health and his uncertainty and lack of confidence in dealing with the seemingly insurmountable disparities of the broad socio-economic context.

7.5 Alexa's RHD calendar: 'empowerment through knowledge'

Alexa decided to make a calendar. She writes that this was best suited to Bonga's needs as "the biggest difficulty he faces is to remember to take his medication and to attend clinic appointments".

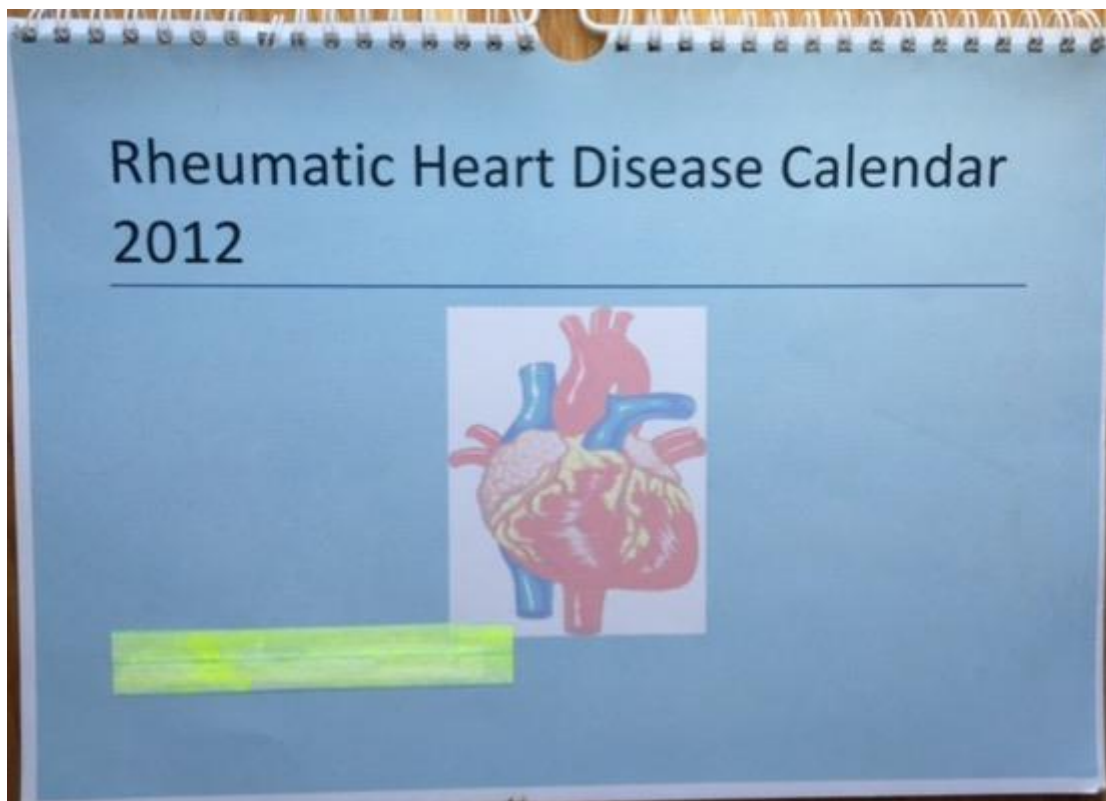


Figure 7.1: Alexa's calendar front cover

7.5.1 Selecting and representing RHD information

The calendar has a front cover and twelve pages, one for every month. Each of the twelve pages represents a month of the year, and is laid out as a conventional calendar-style grid with days of the week and month on the front, with an 'information session' on the opposite page. The artefact's overall layout follows a narrative pattern (Kress & Van Leeuwen, 2006) which affords the opportunity to 'tell Bonga's story'. On the front page (Figure 7.1), a realistic image of a heart establishes both a theme and a starting point to the story. The month-by-month layout provides rhythm and a temporal dimension, and the narrative 'ends' twelve pages later with a photograph of a beach at sunset (Figure 7.9), featuring three silhouetted figures 'jumping up into the air'. Read together with its caption '*All I can say about life is... enjoy it*' the scene is symbolic of a full, happy life; a fitting 'ending' to Bonga's story. Within this narrative, two distinctly different aspects unfold side by side on opposing pages. On the monthly page containing the calendar grid, the layout is stark and rigidly repeated from month to month. Each month's grid is completely empty of information, except for one date highlighted in yellow as '*Clinic Appointment*' and a framed

text below that asks: 'Have you taken your medication today?' This part of Bonga's 'story' purposefully uses the modes of layout and writing to construct the main message of the artefact: 'a call to adherence'.

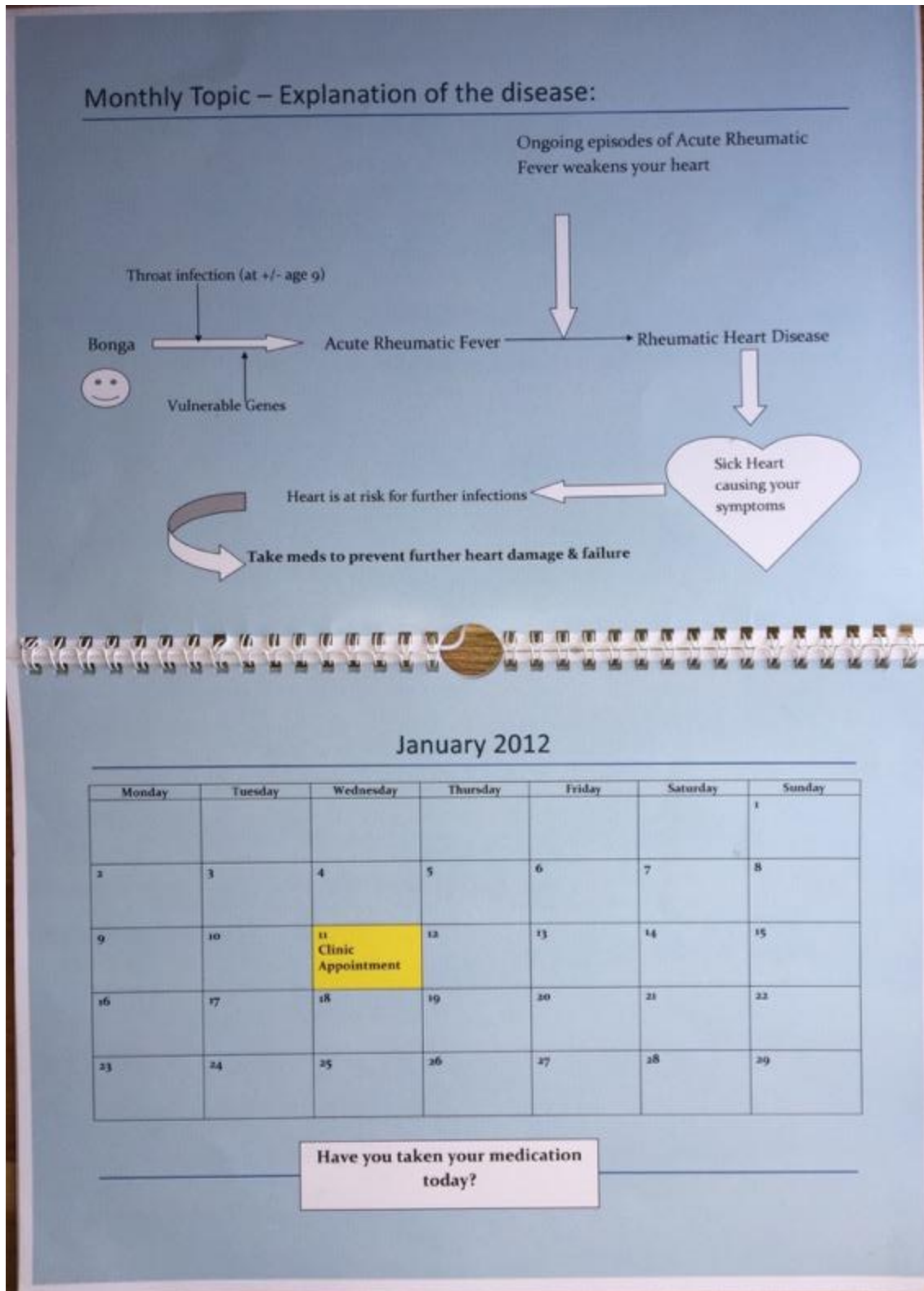


Figure 7.2: January information and calendar grid

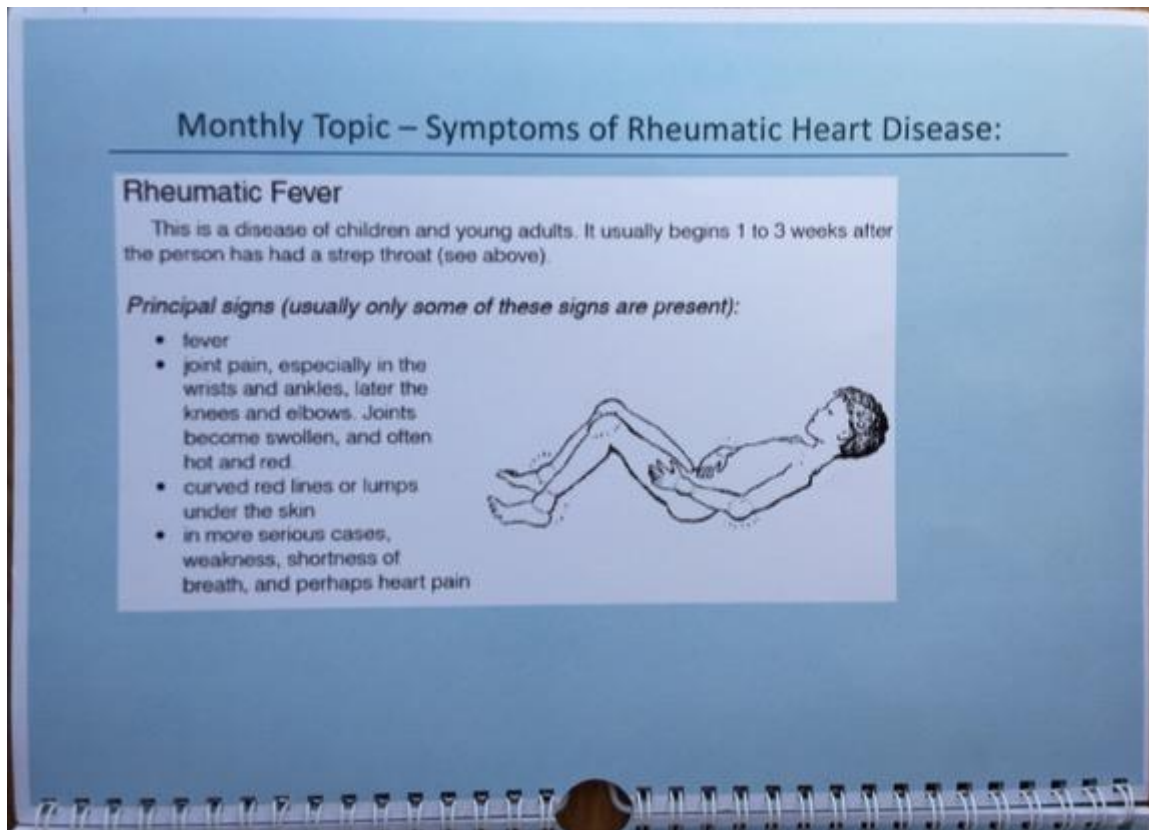


Figure 7.3: February rheumatic fever information

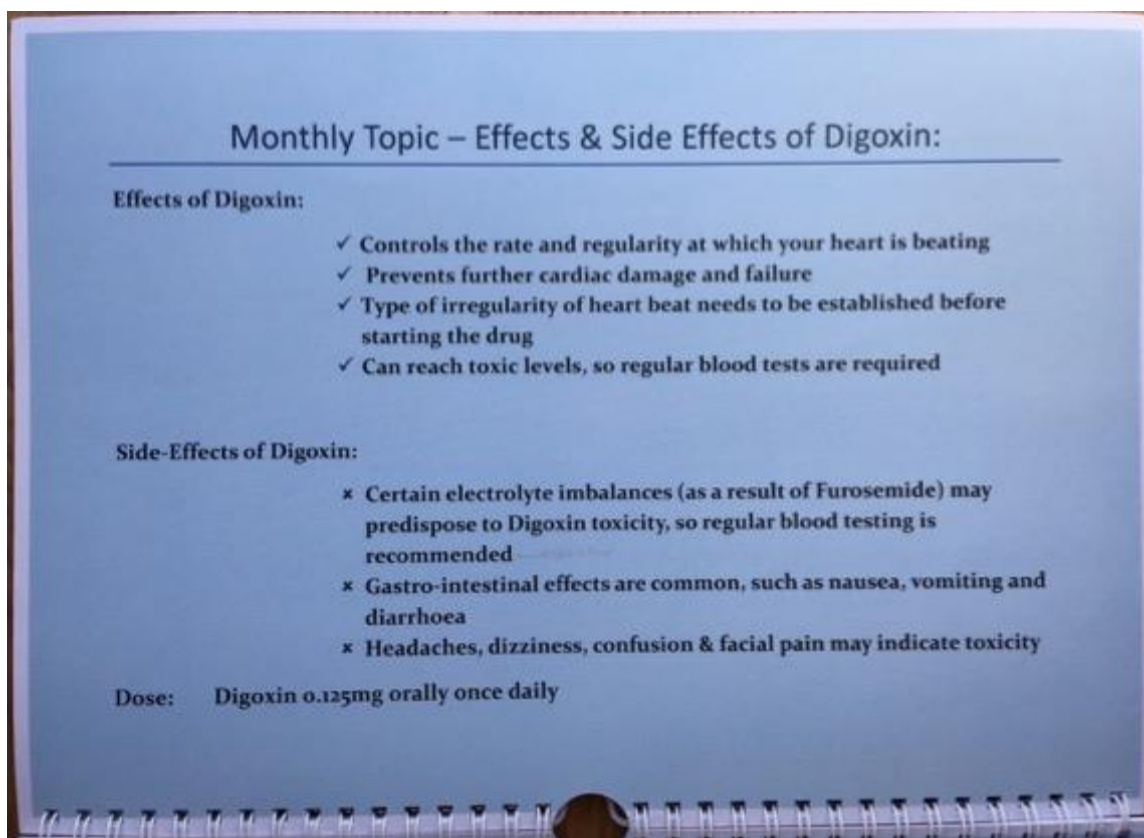


Figure 7.4: June drug information

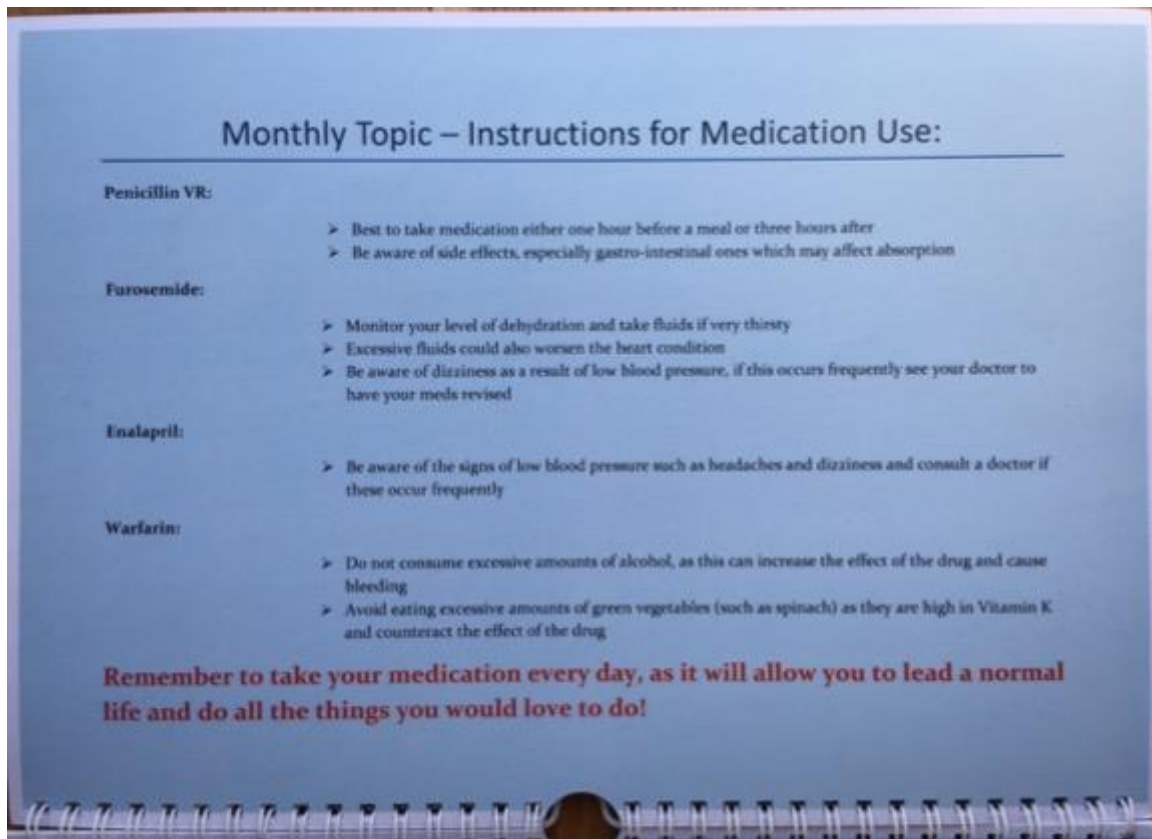


Figure 7.5: August drug information summary

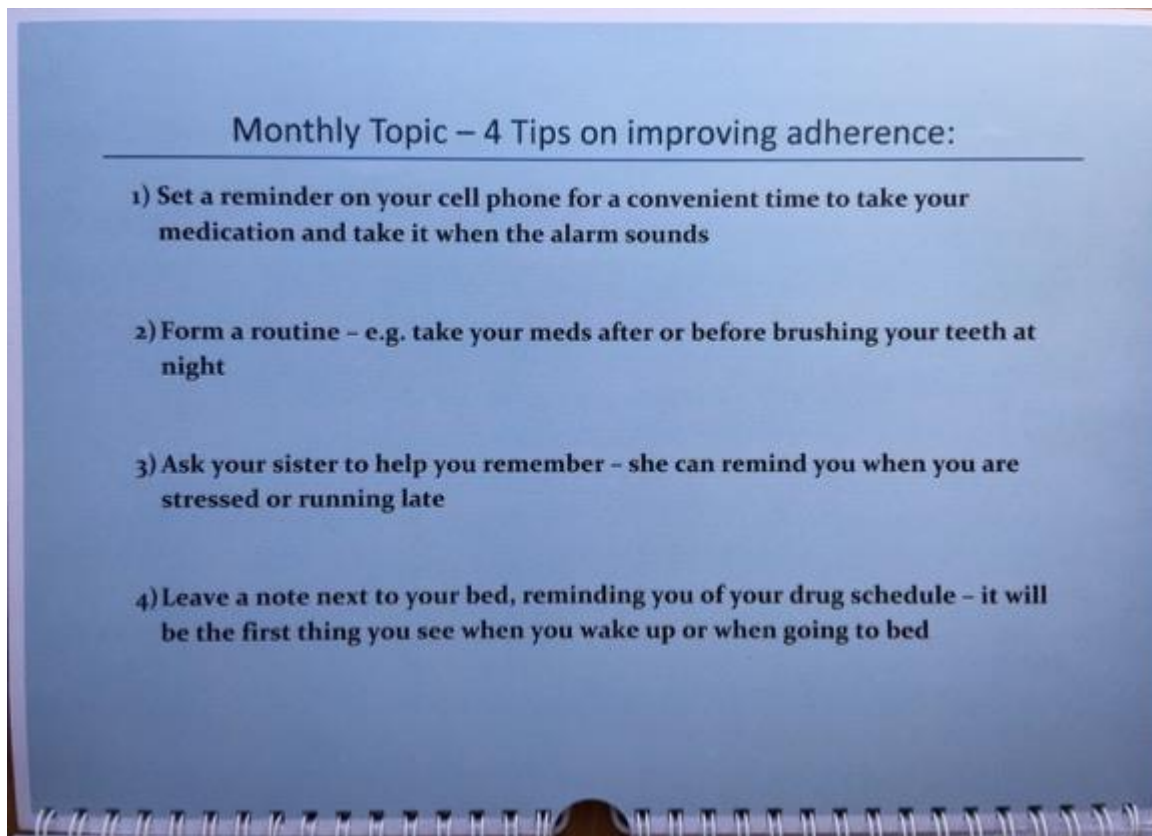


Figure 7.6: September adherence reminders

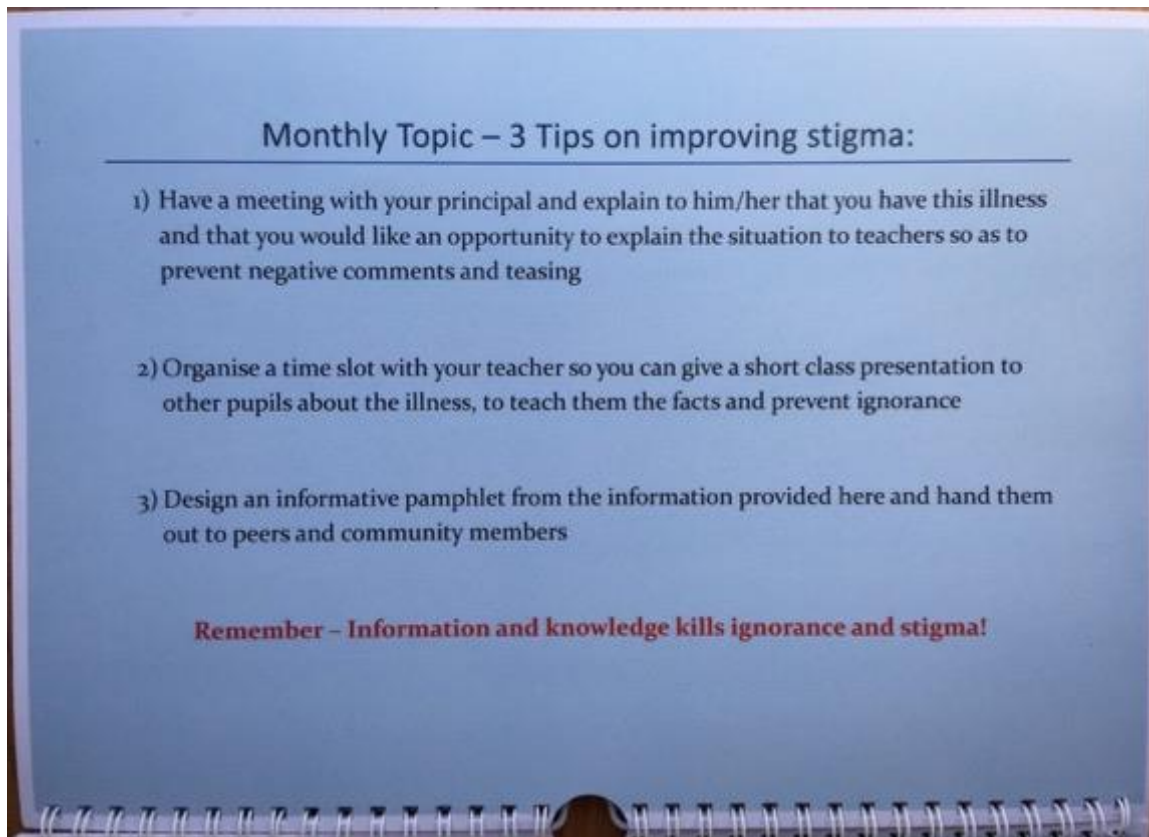


Figure 7.7: October dealing with stigma

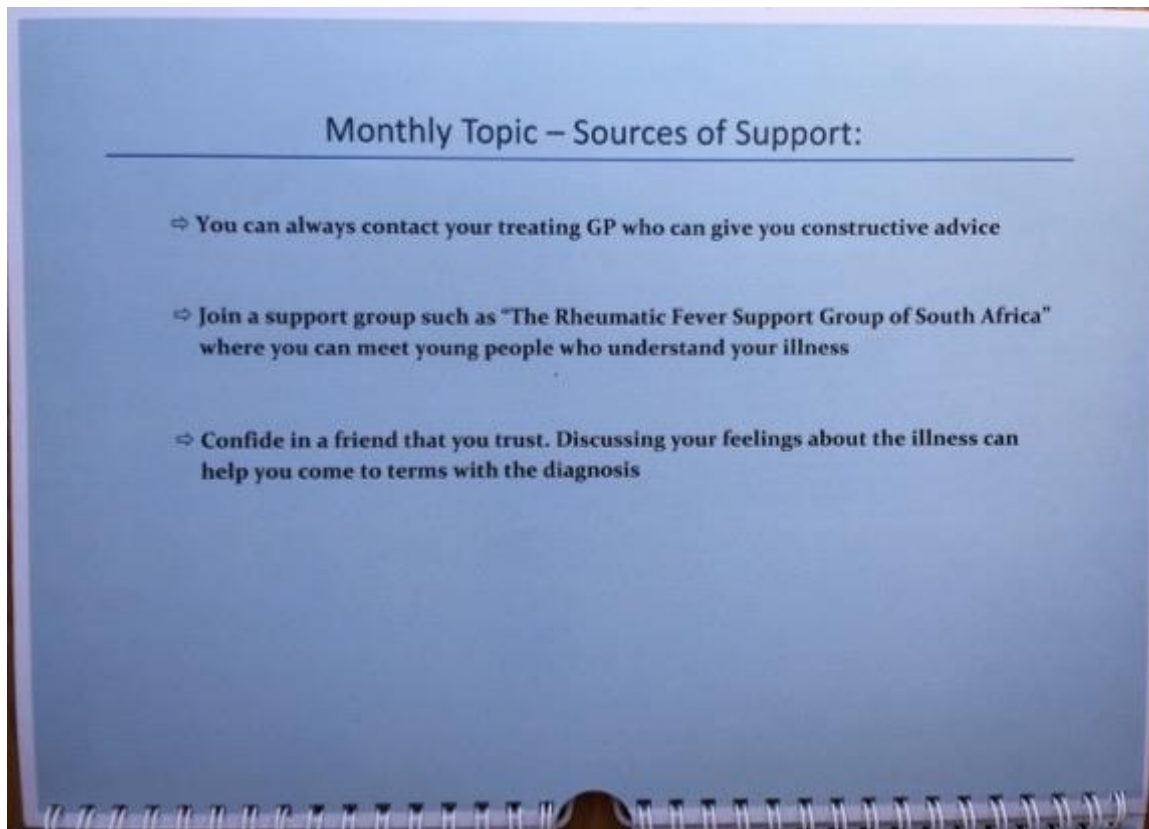
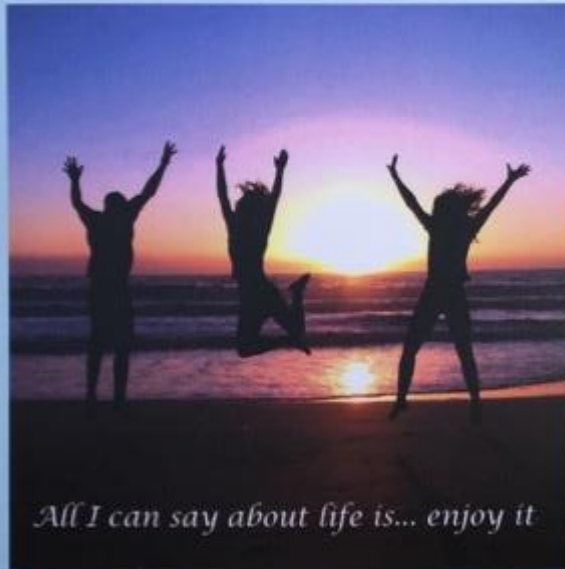


Figure 7.8: November social support

Do not let Rheumatic Heart Disease hold you back!



December 2012

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1	2
3	4	5	6	7	8	9
10	11	12 Clinic Appointment	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Remember to take your medication every day, especially during the holiday period!

Figure 7.9: December

On the page opposite the monthly calendar grid, a series of ‘information sections’ unfolds sequentially. Pages 1 and 2 (Figures 7.2 and 7.3) deals with RHD in childhood, pages 3 to 8 (Figures 7.4 and 7.5) provide biomedical information on the drugs Bonga currently takes, and pages 9 to 11 (Figures 7.6, 7.7 and 7.8) take on psychosocial issues involving family, peers and even strangers. Alexa’s information is personalised, from the first ‘smiley face’ icon (labelled ‘*Bonga*’) to the encouragement in the last sunset photograph (Figure 7.9), and this suggests that all this information is personally relevant to Bonga. The act of juxtapositioning the twin semiotic goals of ‘adherence’ and ‘knowledge’ realises Alexa’s ideological beliefs on adherence: patients should preferably not be ‘blindly adherent’, but should know enough about their disease that they would want to be adherent. In the next section, what counts as knowledge is further explored as ‘physical experience’, as ‘biomedical facts’ and as ‘social experience’.

7.5.1.1 Knowledge as the ‘physical’ experience of RHD

Just as the monthly grid layouts represent regular ‘moments’ in Bonga’s life where he is reminded of his clinic visits and medication, the semiotic goal of ‘knowing’ is represented as ‘concepts’ imbedded in the overall temporal arrangement (Kress & Van Leeuwen, 2006). Bonga’s journey is mostly revealed in transactional processes where the Actor is transacting with or reacting to a Goal (Kress & Van Leeuwen, 2006). The section ‘*Explanation of the disease*’ opposite the month of January (Figure 7.2) takes the form of a flow diagram. The reading starts at a ‘smiley-face’ representation of Bonga and proceeds along a series of arrows to a heart shape labelled ‘*Sick Heart causing your symptoms*’ and then to a warning to ‘*Take meds to prevent further heart damage & failure*’. The personal details (naming of ‘*Bonga*’, and ‘*at +/- age 9*’) as well as simple everyday words like ‘*sick*’ emphasise the human connection.

This is continued in the February section (Figure 7.3), where the signs of rheumatic fever are similarly described as ‘*lumps*’, ‘*heart pain*’ and so on, and is accompanied by a line drawing suggestive of a child with ‘*achy joints*’. Bonga is both the represented participant (or subject matter) and the interactive participant (involved in the act of communicating) (Kress & Van Leeuwen, 2006). Together with transactional processes that emphasize ‘doing’ rather than ‘being’, Alexa uses this design to “empower Bonga by providing him with knowledge about his body”. She builds her case for ‘active adherence’ through

‘empowering knowledge’ by starting with things he had already experienced and ‘felt’ physically in his body.

7.5.1.2 Knowledge as biomedical facts on RHD

In contrast, the March to August pages each feature a ‘*Monthly Topic*’ which take on a conceptual/analytical structure, with the drug acting as carrier and the ‘*Effects*’, ‘*Side-Effects*’, ‘*Dose*’ and ‘*Instructions*’ as attributes (Figure 7.4). Conceptual/analytical structures represent ‘the way things are’ (Kress & Van Leeuwen, 2006), where some attributes are singled out as being more ‘critical’ than others. The drug information is presented as being both ‘factual’ and ‘personalised’ for this patient. The page layout resembles that of a drug package insert, and the simple language is replaced with medical terms such as ‘*endocarditis*’ and complex wording such as ‘*irregularity*’ and ‘*breathlessness*’.

Alexa does not specifically motivate this sudden change in layout and language, but it is possible that she associates the formality of a package insert with a more formal approach, which she feels is needed when one talks about adherence. She writes that the tone suits the “seriousness of the disease... it became evident to me that he is a very serious young man, who would like clear and concise information, without too much fuss and frill”. While the theme has now shifted to drugs and their attributes, the information is still personalised through occasional reference to Bonga, as in ‘*your heart*’ and ‘*your doctor*’.

7.5.1.3 Knowledge as social experience of RHD

The content in September to November relates to psychosocial themes. It signals an awareness of the impact of lifeworld factors such as lack of support and stigma (Penn, Watermeyer & Evans, 2011). September’s ‘*4 Tips on improving adherence*’ (Figure 7.6) concerns setting up practical reminders, such as reminders on his cell phone, bed-time notes, bed-time brushing of teeth and asking help from his sister. October features ‘*3 Tips on improving stigma*’ (Figure 7.7). Even though Bonga’s experience of stigma isolated him throughout his life, these ‘*tips*’ advise him to meet with the principal and teachers, give a class presentation and hand out pamphlets in his community. November’s content (Figure 7.8) references sources of support that Bonga has no access to, for example, ‘*You can always contact your treating GP*’ (as a state-funded patient, he sees a different doctor every time);

'Join a support group' (there are no support groups for RHD in the public sector) and *'Confide in a friend you can trust'* (he told her he cannot trust or relate to his peers).

In view of what Bonga shared with the students about his lifeworld struggles, providing this type of advice seems out of place. However, Alexa's reflection suggests that her 'advice' stems from a deep concern for Bonga's emotional well-being. She has experienced something profoundly patient-centred; she has 'seen' RHD through Bonga's eyes:

my interview with Bonga showed me to what extent the illness impacts a young person's life. He is unable to do the things he loves and the stigma surrounding his illness causes him immense emotional suffering. I always considered RHD to be one of the diseases that people can live with easily (Alexa, reflective notes).

In the December spread (Figure 7.9), she uses a symbolic conceptual representation to realise her empathy and 'end' Bonga's story on a happy note. It shows a photograph of happy people on a beach which "was meant to inspire hope and happiness. I added it because I thought it would help Bonga realise that although his illness is a serious one, it is not the only thing that defines him and he has the potential to live life to the fullest".

A cynical view may interpret Alexa's 'interest' as being strategically motivated, for the sake of demonstrating a biopsychosocial approach to the artefact's assessor. However, she argues that she is trying to encourage Bonga to take "control over his own disease, as ... autonomy has been shown to be one of the greatest predictors of good adherence to treatment". Alexa sees taking a pro-active stance in his own household and his school community as 'taking control'. In PHC terms, he is a subject of 'transforming actions' where people identify their own problems and its historical roots to develop strategies to overcome them, rather than having things done for or to them (Macdonald, 1992). However, Alexa's sub-text is still 'control for the sake of adherence'; he must change his circumstances so that it does not affect his treatment. This control is located within a position of "knowing", which (for her) is the same as 'power'.

Interestingly, during the research interview Bonga agreed that stigma was a consequence of people being uneducated, but while he wanted to understand more for his own sake, he did not equate having knowledge with having power to change people's perceptions about him. When asked if he would speak about his disease in public to help other sufferers, he answered

that “if I have a lot of knowledge I will say “yes””, but at the same time he was adamant that “to tell someone, next day they gonna laughing at you all the time”. Bonga’s instincts echo the sentiments of social constructivists like Conrad and Barker, who reason that whether or not a disease is stigmatised is determined by social rather than purely biological reasons (Conrad & Barker, 2010). Nevertheless, Alexa’s representations of knowledge answer to the PHC ideal of ‘conscientization’ which is “the educational process whereby people deepen their understanding of the limiting dimensions of their own situation and their ability to transform it” (Macdonald, 1992:158). She seems to understand that transformative health education extends beyond disease knowledge to critical consciousness (Nutbeam, 2000).

7.5.2 Organising information

The coherence of a text is described as the way elements are ‘composed’ to make sense, and this ‘composition’ guides how the learner engages with the represented information (Kress & Van Leeuwen, 2006). The calendar’s layout realises a temporal arrangement where aspects of Bonga’s story is framed as ‘concepts’ that ‘unfold’ over time. Alexa writes that the aim of this temporal arrangement is to “allow Bonga to interact with the educational tool in his own time and space”. Alexa explains:

The reading path is rigid, guiding him from month to month, with monthly topics clearly labelled with large headings. The facts underneath the headings are usually bulleted or numbered, allowing the reader to follow the ideas in a clearly structured way, so as to prevent confusion and misunderstanding (Alexa, reflective notes).

Salience markers are consistently used to foreground the core message: the importance of adhering to one’s treatment plan. This is accomplished through repetition of the monthly calendar grid and through repetition and colour highlighting of ‘*Clinic Visit*’ and ‘*Have you taken your medication today?*’.

Providing information in an accessible and coherent way “at his level of understanding” is a major concern for Alexa, and she repeatedly describes her design as “uncomplicated” and “easy to understand”. January’s flow diagram, for example, uses “simple” shapes, words and salient connecting arrows to depict disease progression, something Alexis considers as “vital that he comprehends this, so as to be able to understand the medication and the necessity for good adherence”. This attention to organisational detail suggest that Alexa is trying to reach out to Bonga at what she imagines to be his educational level.

Sadly, while using the calendar as stimulus text during the research interview, it soon became apparent that despite Alexa's efforts, Bonga did not understand how to 'read' the diagram or what the arrows meant (even though it certainly seems simplistic from a scientific orientation). Furthermore, while Bonga understood that the calendar served as a clinica and medication reminder, he did not understand many of the English words used in the drug information sections, for example '*ongoing*', '*excessive*', '*adherence*' and '*gastro-intestinal*'. This is a common occurrence on the health care platform; even in the absence of overt language barriers, socially-disadvantaged patients "have difficulty with the terminology linked to the disease itself" (Penn, Watermeyer & Evans, 2011:315).

A person's reading fluency depends both on the vocabulary (what individual words mean) and on conceptual knowledge (how the world works) (Baker, 2006). While no data exists on what counts as 'plain' English in our context, data from the U.S National Library of Medicine suggest that health education should ideally be aimed at a sixth to seventh-grade reading level (Nlm.nih.gov, 2016). Furthermore, literacy in a more general sense (being able to read) does not necessarily equate to 'health literacy' (reading and understanding health information). Applying words and concepts that are socially familiar to health contexts (such as RHD) may improve a patient's 'health literacy'. Multimodal texts are useful in this instance because semiotic 'familiarity' does not apply only to written information, for example, the image of the child helped Bonga to make sense of rheumatic fever ("I understand because it shows there are sore ankles"). This view of health literacy sees knowledge as co-constructed and health education as a type of 'participatory pedagogy' (Macdonald, 1992).

During the research interview, Bonga's lack of comprehension was not immediately apparent, and it is quite plausible that Alexa did not realize the extent of his learning needs. He uttered 'uhms and ahs' and stared at the pages for quite a long time, and on being asked to explain the content, he at first tried to evade the questions and then finally and reluctantly admitted "I didn't understand it quite well". This hesitance may be related to fear of ridicule or even shame, as another patient put it: "Sometimes I'm a little bit confused, and I don't want to appear as being stupid" (Schlemmer & Mash, 2006:1086). This type of response may also relate to different groups' preferred style of communication, and is often explained as expressions of either more individualist or more collectivist cultures (Ashton et al., 2003). In the South African setting, a patient's passivity may signal a desire to show respect for

authority and preserve the relationship with the doctor (Schlemmer & Mash, 2006). Grainger, Mills and Sibanda warn that the face-related folk conceptualisations of

ubuntu and *hlonipha* (respectively, a recognition of the importance of one's connectedness to others, and a system of avoidance based respect), play a role in the use of politeness strategies of indirectness in the southern African cultural context (2010:2159).

Indirect or 'yes' responses may (erroneously) be taken as an indication that patients understand or even agree whereas they are merely politely acknowledging that the doctor is speaking as a person in authority. Of course, patients' responses are not always misunderstood; doctors sometimes simply ignore subtle signs of poor comprehension when they feel pressed to 'get the job done' (Deumert, 2010).

Creating a shared understanding of the medical problem is essential to formulating a therapeutic alliance, and this is a central tenet of patient-centred communication. The selection, representation and organisation of knowledge require consideration of broader social contexts that include patients' literacy, language, culture, education and social contexts. Alexa's artefact suggests that students need more explicit guidance on how to gauge patients' functional health literacy and be more sensitive regarding educational backgrounds. At the time of the interview, Alexa was only a few years older than Bonga, but she did not, in fact, *could not*, understand the magnitude and impact of their socio-economic, cultural and educational differences as a legacy of apartheid. As seen in this example, even when students respond to their patients with empathy and respect, social discordance may contribute to communication that perpetuates inequality (Thornton et al., 2011; Rocque & Leanza, 2015).

7.5.3 Modality as authorial stance: credibility of the medical discourse

The juxtapositioning of 'knowledge' and 'adherence' in Alexa's calendar makes provision for two distinct positions: it is the responsibility of doctors to educate patients, and the responsibility of patients to act on that advice. In playing her role in this professional relationship, Alexa infers authorial credibility in several ways. The drug information sections are particularly apt for constructing a medical discourse that 'informs'. The layout of these sections (the lists of effects and side-effects of drugs, which include things you should or shouldn't do) is ordered using bullets for 'the right thing' (✓) or 'the wrong thing' (X), and in this context, can be interpreted as markers of evidentiality. The presence of a

medical discourse is also seen in the framing of the drug information section's layout as a medicine package insert; this medicalised voice constructs high modality and lends authoritative weight to the contents.

Most of the information in this artefact is presented in the written mode. The monthly repetition and salience of the phrases '*Clinic Visit*' and '*Have you taken your medication today?*' construct an emphatic style. In the drug information sections, credibility is supported through the consistent use of the simple present tense (for example, furosemide '*treats high blood pressure*' and '*prevents water overload*') which constructs 'the present reality'. Even the hedging words in these pages (such as '*can*', '*mostly*', '*rarely*', and '*recommended*') are characteristic of the ways that doctors talk. Therefore, while they may invite ratification from Bonga's own experience, they also realise a medicalised discourse. Risk-related words such as '*important*' and '*very dangerous*' lend affective weight to the argument for adherence.

Alexa's authorial presence is only inferred. She does not mention herself except in the sunset photograph right at the end, which is meant as a personal encouragement rather than a modality marker. This reading as a 'personal message' is supported by the wording and flowing letters of the caption, as it is the only time Alexa uses a font resembling handwriting. In fact, her overall lack of images is meant to construct high modality, as she believes pictures "would not complement the academic nature" of the message. The line drawing of the child with 'achy joints' was specifically used to realise credibility from Bonga's 'point of view', and the success of this strategy is evident in Bonga's interest in and reaction to this image during the interview. However, more images may have been useful to facilitate his comprehension of the topic (Houts et al., 2006), and the lack of images in service of modality comes at a cost.

Alexa's stance serves to foreground her insistence on adherence. It is easy to criticise doctors for a preoccupation with 'adherence' and even 'compliance'. However, medical decisions carry the potential for benefit and harm, and given that "accountability rests with the prescribing doctor" (Horne et al., 2005), defensible medical practice sometimes requires doctors to invoke professional authority. Proponents of patient-centred 'autonomy' have been criticised for ignoring the functional reasons for asymmetric doctor-patient relations, in favour of blaming it on the doctor's lack of communication skill or on hegemonic reasons (Pilnick & Dingwall, 2011). Certainly, clinician-teachers who resist the 'patient-centred'

philosophies of PHC seem to share this critique and argue for a more nuanced understanding of asymmetry within South Africa's health care context.

7.5.4 Modality as social engagement

Social engagement signifies how the author positions his or her audience to align with a certain viewpoint (Hyland, 2005). Alexa's strategy is to position Bonga as an empowered person who takes charge of his health, but her design leave room for the possibility that Bonga may not be able to rise above his challenges.

7.5.4.1 Positioning Bonga as being 'in control'

In Alexa's view of the world, Bonga has the responsibility to take control over his health. Even though their relationship is asymmetrical, Alexa constructs a professional yet caring relationship with Bonga in line with a contemporary patient-centred approach. Personal address forms such as '*you*', the '*I*' in the photo caption, the effort and dedicated hard work that went into making this artefact and even her stern insistence on adherence all serve to identify Alexa as a caring physician who wants the best possible outcome for her patient, and is willing to go the extra mile with him to win his active participation. In other words, it realises a commitment or personal bond.

However, she seems less sure of the extent to which he can take on this role, and it is possible that at least some of her choices towards 'simplicity' in her design are also markers of 'simplicity' (Dray & Papen, 2004) that illustrate a greater social distance. Firstly, she includes 'empty space' (Bezemer & Kress, 2008) in her layout "so as to prevent confusion and misunderstanding" as well as "simple font... ideal for someone with low literacy". Secondly, in contrast to her 'medical voice' in the drug sections, the image and conversational explanation of the child having '*joint and heart pains*' seem so vague and simplistic that it can only be interpreted as an attempt to 'identify' with a patient who struggles to otherwise comprehend (Crawford, 1999). Thirdly, the structure of her artefact allows Bonga to see his essential 'reminders' even if he does not engage with the knowledge component. While these strategies were aimed at making provision for anticipated learning problems, they highlight the social inequalities between participants.

7.5.4.2 Participation as ‘adhering’

The degree and type of responsibility assigned to participants may become visible through offer or demand propositions (Kress & Leeuwen, 2006). The layout of the artefact creates opportunities for either, depending on what Bonga does with the calendar. He can “display” it and it would “remind” and even “instruct” him to take his medication; if he read it and substituted his own clinic dates he is doing something more to become empowered; in Alexa’s words, he becomes an “active participant” rather than a “passive recipient”. In the written sections, drug information is ‘on offer’, containing reminders to ‘be aware of’ rather than auxiliary verbs such as should or must.

In contrast, when he must do rather than understand something, advice (such as when dealing with stigma) is given as directives, with each point styled as an instruction to ‘set’, ‘form’, ‘ask’ or ‘organise’. Similarly, the monthly question ‘*Have you taken your medication today?*’ is more of an instruction than a real question, as it is assumed that a reasonable person would then take their medication if the answer happens to be ‘no’. The three images in the calendar (the heart on the front cover, the child drawing and the sunset photograph) all offer information related to Bonga’s experience of the disease. The sunset photograph expresses an emphatic plea in ‘*Do not let Rheumatic Heart Disease hold you back!*’ but this is tempered by the soft dusky focus and colours, Alexa’s almost wistful comment on life and the soft flowing ‘handwriting’ font.

An interesting aspect of Alexa’s design is the apparent tension between her own directive style, her desire for Bonga to be empowered, and her recognition that Bonga might not become a more active participant in his own health care. It is almost as if her artefact makes provision for a ‘plan B’. Despite her willingness to co-construct knowledge and a therapeutic alliance as ‘partners’, Bonga might not engage with this process, and in that case her interaction with him defaults towards sterner, more authoritative instructions towards ensuring adherence, even if it is ‘blind adherence’. This contingency strategy may have its roots in her experience of working in a public health system characterised by socio-economic inequality. A systematic review of the literature (Verlinde et al., 2012) found that indices of the patient’s social class (such as education, income or occupation) had a significant impact on patients’ communication preferences, with lower education levels predicting less preference for shared decision-making (McKinstry, 2000) and greater preference for a

paternalistic communication style (Murray et al., 2007). These preferences may result from not being used to contributing or not feeling capable of contributing, perhaps because these patients feel that they do not have enough information (Murray et al., 2007). Despite decades of patient-centred philosophy in medicine, patients from lower social classes experience “a lower sense of personal control... and receive... a more directive and a less participatory consulting style characterised by for example less involvement in treatment decisions” (Verlinde et al., 2012:22).

These findings resonate with Pilnick and Dingwall’s argument that interactional dominance by doctors is “not necessarily always and exclusively problematic” (2011:1378), and may in fact be necessary. Rather than framing every interaction as a struggle for dominance, leading to the ‘silencing of patients’, they argue that interaction is co-constructed;

patients actively defer to physicians for two reasons: because they share the locally functional goal of accurate diagnosis, and successful or appropriate treatment; and because they recognize that some degree of submission may be the most efficient strategy for achieving this (Pilnick & Dingwall, 2011:1378).

Of course, certain characteristics of the doctor’s communication style may elicit more extended responses from patients, for example, when doctors explain their reasoning rather than give a conclusion, it serves as an invitation to patients to display their ‘knowledgeability’ (Peräkylä, 2006). Critics of participatory decision-making do not advocate for ‘authoritarian’ approaches as opposed to ‘patient-centredness’, instead, they argue that communication is truly patient-centred when it recognises and respects each patient’s unique preference for autonomy (Lee & Lin, 2010).

Whereas Alexa exhorts Bonga to take better care of himself, his personal history reveals multiple examples of active participation. South Africa’s PHC philosophy recognises that “participation involves the sharing of power: the acceptance by health professionals that the role of the public in interacting with health care systems is not just one of carrying out duties, but of knowing and exercising their rights as well” (Macdonald, 1992:154). Like Ms Tsetando (Chapter 6), Bonga repeatedly challenged the status quo both in terms of his knowledge and in terms of his treatment. Neither he nor his sister who accompanied him understood what the diagnosing doctor at the children’s hospital was trying to explain. Ten years later, he says

it still bothers me, sometimes when I'm thinking about that time, why I'm taking these pills 'because they said it's a valve replacement, all that stuff, they said I must take it; if I didn't take it my valve is gonna clot and as soon as it clots I'm gonna die. So I said, "oh, ok, let me just take my medicine maybe I will understand further as the time goes" (Bonga, research interview notes).

Unfortunately, similar to other patients' experiences in the health system (Scherwitz et al., 1985; Jewkes, Abrahams & Mvo, 1998; Penn, Watermeyer & Evans, 2011; Rocque & Leanza, 2015) his requests for information were mostly brushed aside: "sometimes you ask questions, sometimes I don't ask questions, sometimes if you ask something maybe they just say it's fine what-what-what-what, they not gonna tell you straight what's wrong". Bonga experienced a host of side effects over the years, including cramps, nose-bleeds, skin rashes and palpitations, most which were merely written off as 'anxiety'. He says: "Sometimes I try if there is something wrong, I had something wrong maybe my heart was beating fast or what, I ask what was wrong, but they not gonna tell me, but say I was thinking too much" and "they just brush you so you can go away".

It is not only his attempts at understanding his condition that eventually suffered defeat, but also his commitment to adherence, as he could not cope with a hostile, hegemonic system (Crawford, 1999; Coovadia et al., 2009) in addition to his socio-economic troubles. Missing a clinic visit for whatever reason meant it was difficult to book a follow-up date, as the clinic is only open on certain days and no-one gets past the door without having an appointment. He often missed school to wait in queues the whole day, four or five times a month, just to get a blood result. Like Ms Tsetando and other interviewed patients, he expresses strong feelings about this inefficiency and what he perceives as a lack of respect. Once Bonga was turned away because his folder was locked in the clerk's office. He refused to go, insisting to "find out the office of the staff nurse and tell him that I'm not going anywhere 'because I don't have any medication! I didn't find the staff nurse that time, then I decided just go home". His experiences of the structural barriers to health care (Crawford, 1999; Levin, 2005) are similar to negative experiences reported by other vulnerable patient groups:

being treated with disrespect, experiencing pressure due to time constraints, and feeling helpless due to the dominance of biomedical culture in the medical encounter (Rocque & Leanza, 2015:1/31).

Bonga's perspective on power-sharing in the 'real world' is very different from that of the students, and remind us that, despite Pilnick and Dingwall's defence of medical authority

(2011), hegemonic dominance sometimes does disempower patients both in the health care system and in broader society. Bonga cannot be blamed for his nonadherence; it is 'unintentional', arising from "capacity and resource limitations that prevent patients from implementing their decisions to follow treatment recommendations and involves individual constraints (e.g., memory, dexterity, etc) and aspects of their environment (e.g., problems of accessing prescriptions, cost of medicines, competing demands, etc)" (Horne et al., 2005:14). Ultimately, failing to adhere to his treatment plan is not that different from his failure to speak to peers and teachers and even other patients; both are born from his experiential knowledge of the futility of resisting hegemonic forms of power.

7.5.5 Alexa's summary

In summary, Alexa's design creates representations of knowledge that are highly personalised for Bonga's needs, and are made available through an interactive 'conversation' between an empathetic medical professional and a socially-disadvantaged but willing patient. Her choices realise an important domain of patient-centred communication: taking a biopsychosocial perspective of the disease and the situation, and seeing the problem through the patient's eyes. She understands that many of his problems are related to issues of power. Therefore, Alexa's goal is for Bonga to adhere to his treatment plan because he understands his disease and medication, and gaining this knowledge should 'empower' him not only as a patient within the health care system, but also as a member of social groups and communities. It seems that for her, empowerment means that he is 'active' in both these spheres: as an 'adherent' patient, and as a health promotion social activist. In line with the ideals of patient-centeredness, Alexa represents empowerment as a personal and social process with the potential of building self-confidence, and "shedding feelings of powerlessness and resignation which result, at least in part, from the lack of skills and confidence required to change their condition" (Baum et al., 2009:430).

Alexa goes beyond the transmission of biomedical facts; her attempts at eliciting Bonga's perspective and experience as a patient operationalise a profoundly patient-centred attitude. Her emphasis on helping him to 'taking control of his life' by different means signals a willingness to share power and responsibility. However, she does not shy away from using her authority as a doctor to ensure that at the very least, he would be adherent to his treatment. She creates a personal bond with him, so that she can encourage him to learn and to persevere

amid his challenges. Her health education content (the patients' physical and social experiences as well as biomedical facts) spans all three of the essential 'strands' desirable in a PHC aligned activity: "biological knowledge, consumer information and a concern with the wider issues affecting health" (Macdonald, 1992:149).

To what degree she understands the extent of their social and educational gap, is another matter. There is an element of naïveté about in her opening statement, "the biggest difficulty he faces is to remember to...". His experience as an ostracized high-school dropout is perhaps too far removed from her own privileged education and social standing. Her semiotic choices undoubtedly reflect an informed flexibility in response to his perceived needs, but they may fall short of being meaningful to him personally, because of their social disparities. As individuals, they are both trying to do their best, but neither of them can reach beyond the boundaries of their own social environments and roles. Bonga has an experiential knowledge of rheumatic heart disease and a courage that saw him at times challenging the health care system when it was inefficient or disempowering, but his struggles did not achieve anything, and he eventually came to accept it as 'the way things are'. Alexa's social authority and voice is partly due to her education as a future doctor, and it is no wonder that she equates empowerment with having knowledge.

Unfortunately, having knowledge cannot 'fix' the problems Bonga faces in adhering to his treatment. Equating knowledge with the ability to "take control of his life" makes Bonga accountable for things he has no control over, such as his inability to understand the RHD information, his failure to get money or time off to attend clinic, his acceptance of poor or intermittent service at the clinic and even his social identity as someone who is seen as 'weak' and 'different'. The PHC vision of empowerment sees an individual not only as knowledgeable, but as "a person-in-community, unique but with others and whose destiny lies in the humanising of society" (Macdonald, 1992:160). Therefore, medical educators and medical licensing authorities need to understand that, just as Bonga is constrained by his social circumstances, Alexa is also a 'person-in-community', and by herself cannot redress social imbalances and injustices. Patient-centred communication cannot be 'done' or even 'measured' in a vacuum; every individual doctor-patient consultation resides within a broader social context, within our history of colonisation, apartheid and socio-economic polarisation. At best, this exercise in operationalising patient-centred communication can orientate Alexa and her colleagues towards the PHC ideal of 'health for all' and towards

developing “a bias for the disadvantaged” (Macdonald, 1992:164). This finding is also seen with John, whose artefact is discussed in the next section.

7.6 John’s pamphlet: ‘Empowerment through choice’

John motivates his decision to make a ‘traditional’ medical pamphlet from assumptions about Bonga’s respect for academia, saying “he liked being at school and did not like missing it which is why I thought the more informative pamphlet would be more appropriate, as he seemed to want to learn about his condition”. John identifies his audience as ‘teenagers who were interested in learning about their condition’, and the design choices that he makes are repeatedly linked to this perceived willingness and interest.

7.6.1 Selecting and representing RHD information: what is ‘meaningful?’

John’s pamphlet contains only biomedical information. This includes short written descriptions of what RHD and rheumatic fever is, what symptoms and signs occur, what valve changes occur, what preventative management is and what complications can occur. Whether the selection of content primarily informed his choice of genre or was instead determined by the genre, is not clear from his motivation. In the written sections, the disease is described in simple English wording and sentences, and metaphor is used to represent RHD as an aggressor through phrases such as ‘*it attacks*’, ‘*repeated attacks*’, ‘*trying to get rid of*’ and ‘*it kills bacteria*’ (Bounegru & Forceville, 2011). The RHD information concerns mostly definitions and lists provided as conceptual ‘Carrier and Attribute’ ensembles (Kress & Van Leeuwen, 2006).

The theme of disease progression is also represented through images. The cover photograph features two hands making a heart shape. It is labelled ‘*Rheumatic Heart Disease*’ and its soft focus and colours realise a symbolic ‘window’ through which one can view the world.

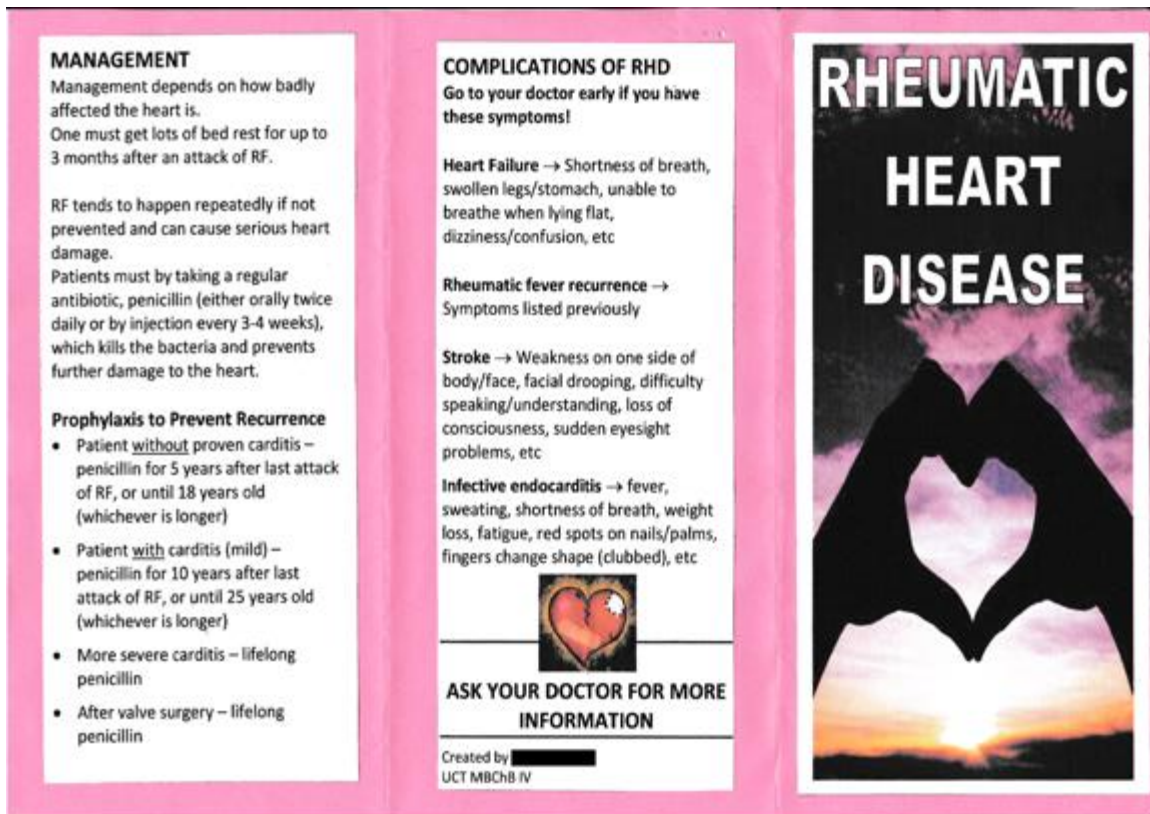


Figure 7.10: John’s pamphlet front and back panels

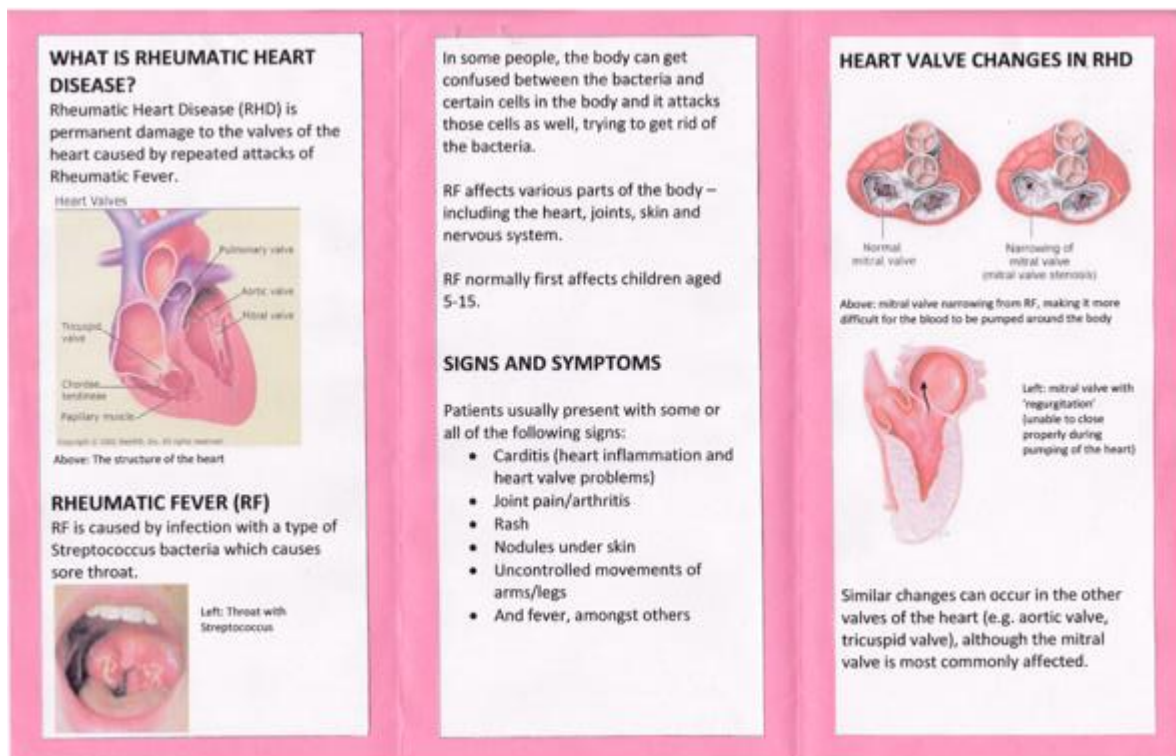


Figure 7.11: John’s pamphlet inside panels

Most of the images, however, are concerned with the theme of RHD as an aggressor. These annotated and labelled images provide a visual representation of what is ‘being done to the body’, thereby inadvertently realising the RHD patient as a ‘sufferer’ or ‘victim’. On opening the pamphlet, a medical drawing labelled *‘the structure of the heart’* provides an anatomical perspective; only the valves are annotated, giving them salience as being the topic under discussion. This is followed by a small photograph of an open mouth with pus-filled tonsils, labelled *‘Throat with Streptococcus’*. The opposite panel features three images of heart valves in more detail: the first two show the ‘before’ and ‘after’ damage that narrowed the mitral valve, and the third shows a mitral valve *‘unable to close properly during the pumping of the heart’*. The back of the pamphlet has a small stylised drawing of a ‘broken heart’ that has been ‘patched’.

It seems important to John that Bonga understands the heart valve changes; he writes “although this is technical, I feel it was necessary to put across what was happening in the patient’s heart and is important for him to understand the condition as a whole... (the images) try to help the patients to visualise what is going on inside of their bodies”. It is as if John wants Bonga to ‘own’ his disease through visualising its effect on his own body. This turned out to be a useful strategy; when Bonga saw the pamphlet during the interview he immediately identified with the images, saying that he did not know a sore throat was involved. He thought the images of the valves were useful “because it shows even the inside of the heart” and being able to see the damage is “a good thing to know”.

John thus creates representations of knowledge that are strictly biomedical and that realise a biomedical cause-and-effect pattern, and that culminate in warnings on developing further RHD complications. This choice of content reflects a rather dated view of health promotion; it draws on “how motivated or otherwise individuals are to protect themselves. This leads to a consideration of the effects of fear arousal on health behaviour. In other words, sometimes fear of the consequences of unchanged behaviour can motivate the learner to accept the health education message” (Macdonald, 1992:143). John’s reflection notes suggest that he anticipates and is uncomfortable with this interpretation, as he writes “I did not take a domineering, shock-tactic, ‘do this otherwise you will get complications’ approach, although I did include the possible complications of RHD”. As will be seen later, he employs multiple interpersonal strategies to ‘soften’ his message.

Whereas Miriam and Rosie' biomedical focus could be ascribed to a language barrier, the reasons for John's approach is not clear. A social semiotic reading of his artefact unmistakably demonstrates dominance of a biomedical culture, when doctors "orient conversations towards physical symptoms and biological aspects of one's condition" (Rocque & Leanza, 2015:7/31). Since the agenda in these types of conversations are set by doctors, psychosocial issues (such emotions or the impact of illness) are rarely discussed (Rocque & Leanza, 2015). Social discordance in the doctor-patient dyad has been shown to encourage a biomedical approach, where "patients from lower social classes (measured by income, education or occupation) receive less socioemotional talk, a more directive and a less participatory consulting style, ... a higher percentage of biomedical talk and ... less diagnostic and treatment information (Verlinde et al., 2012:22).

However, in contrast to his artefact, John's reflection suggests that he is very much aware of Bonga's struggles. He writes about the burden of parenting his little sister, describes Bonga as being "frustrated" and mentions the stigmatisation: "Hopefully with this information he can explain to his classmates about his condition, should he so wish". Herein lies perhaps the strongest clue to John's choice of biomedical content: when the situation gets emotionally difficult, he responds with 'objectivity' and 'facts', and suggests that Bonga to do the same. It is also possible that John's lack of 'socio-emotional talk' can be partially ascribed to their shared social identity as young men (Thornton et al., 2011).

7.6.2 Organising information

The way in which a text's pedagogic content is arranged, sequenced and fore- or backgrounded contribute to its coherence as learning material (Bezemer & Kress, 2008). John's content is printed onto three white paper panels that are glued onto the front and back of pink cardboard. This layout positions each panel as a 'page', suggesting a left-to-right, top-to-bottom reading path, with written headings in large, black bold capital letters denoting each subsection. These graphic modal resources also indicate salience and allow readers to leave the linear reading path and return to a section or to 'browse' where their interest leads. However, the most salient features on the opened pamphlet are the annotated images, indicating a visual chronological 'order' or temporal progression from sore throat to heart valve damage. John explains his arrangement as 'congruent': "the way the sections have been ordered was done to help with the flow of the pamphlet and allow for easy reading".

John believes that simplifying wording and sequencing is important for patients who are not proficient in English.

Bonga understood the meaning of the images without needing any prompting, but got stuck on words like ‘*complication*’, and ‘*prophylaxis*’, admitting during the interview that once he had encountered two or three difficult words, he stopped reading and skipped to the next section. Even though the vocabulary was more simple than in Alexa’s calendar, John had still underestimated the extent of Bonga’s functional literacy. Bonga had never seen a pamphlet on RHD before, and even though he did not understand much of it, he thought it was useful, as “it was going to be easier to ask if you had that voucher”. Ideally, though, he wanted someone to explain his disease in his own language, and to give him an opportunity to talk it through. He agreed with John that “you can look at (the pamphlet) at home and read it, when you come back to see your doctor, by then you have full information what you gonna ask your doctor”.

However, after being shown the Speaking Book (discussed in chapter 5), in which the written information was narrated in isiXhosa through audio clips embedded in the book’s structure, he asserted that both the ‘oral tradition’ and utilising a patient’s home language were preferable for health education:

I’m Xhosa, I cannot understand English pretty well so that’s why there must be someone that can repeat for me what the doctor say, maybe I can understand better... once you read something they forget about what they read, once you talk then it is more you understand (Bonga, research interview notes).

For Bonga, knowledge empowerment was not only about the language, but about the opportunity to exchange information, for inviting ‘reciprocity of communication’ (Deumert, 2010; Verlinde et al., 2012).

7.6.3 Modality as authorial stance

John’s choice of content suggests a dominance of biomedical culture, and one would expect a strong authorial presence in his artefact. The framing of John’s artefact as a conventional and traditional pamphlet creates a ‘medical space’ (Fairclough, 2000) with strong modality. In this space the doctor’s opinion is viewed as “legitimate, through an established and understood discursal order in which the patient and the doctor are compliant” (Dray &

Papen, 2004:315). However, this high modality is contradicted by widespread academic hedging (Hyland, 2005) throughout the pamphlet, for example *'in some people'*, *'various'*, *'normally'*, *'usually'*, *'can occur'*, *'commonly affected'*, *'management depends on'*. It is only in the sections on *'Management'* and *'Complications of RHD'* that a few emphatics emerge: *'one must get lots of bed rest for up to 3 months'*, and *'Go to your doctor early if you have these symptoms!'* The marked prominence of hedging weakens the modality of the medical discourse initially suggested by the pamphlet's genre. Overall, this stance creates an impression that the health information advice is legitimate but largely informative and 'generic'.

What makes this hedging so significant is that John's tentative stance also surfaces in his reflection, to such an extent that it becomes difficult to follow his reasoning. For example, in motivating his choice of vocabulary, he writes "One would obviously need to have a decent grasp of English to understand this pamphlet, but one does not need to be particularly proficient". In motivating his choice of font, he says "the font is quite big, but small enough so there could still be a substantial amount of information, otherwise the pamphlet would be somewhat less than useful". His unwillingness to be more directive is also mirrored in providing Bonga with 'choices', for example in phrases like "should he so wish". Even though Bonga has been on penicillin tablets for 10 years and is unlikely to change now, John writes a whole paragraph on

the different ways the prophylaxis can be taken, which could empower patients to take medication in the form most suited to their lifestyle... Bonga might wish to take injections so he has fewer pills to take every day, as he already has several other pills which he is taking... he possibly has not been offered this and does not know that he can take his penicillin in this form (John, reflective notes).

In contrast to this hedging, the annotated images in the artefact construct high modality as a chronological, visual trail of 'damage'. John avoids realising authorial presence in the pamphlet; its credibility for Bonga lies in his own experience of RHD and co-opts him to 'agree'.

John perhaps realises that his images and *'Complications'* construct a negative outcome, and goes to some effort to defend his approach and distinguish it from 'shock tactics'. He writes that "the way information is presented in this pamphlet will not scare any people away, apart from people who are not interested in their condition". In other words, if patients care about

their health, they would want to listen, even if it was unpleasant. Nevertheless, John seems uncomfortable with this approach; it is possible that his hedging is a way of distancing himself personally from this ‘bad news’. His reflection also suggests a deep conflict between what he perceives as his professional responsibility (convincing his patient to adhere to treatment) and Bonga’s ability to adhere in the face of such overwhelming socio-economic challenges. John’s wavering stance signifies his uncertainty in the ‘handling of power’ (Nimmon & Stenfors-Hayes, 2016). Students’ discomfort with exercising their authority were seen in many other artefacts, despite Pilnick and Dingwall’s assurance that “exercising authority is not the same as being “authoritarian – authority can and should be exercised in a civil fashion” (2011:1379).

7.6.4 Modality as social engagement

Unlike Alexa’s strong attempts at bonding and encouraging activism and leadership, John’s alignment strategies serve to create a sense of disconnect and low expectations of participation.

7.6.4.1 Social positioning: observing and being observed

Social relations between interactive participants may be constructed through realising different degrees of social distancing or solidarity (Kress & Van Leeuwen, 2006). John uses a public, more distanced writing style in the artefact through absence of personal pronouns and preferring impersonal forms of address (such as ‘*patients usually present with*’, ‘*some people*’, ‘*the body*’, ‘*one must get*’), and this is in tune with his generic content and conventional layout. He also does not use images of people, which could have connected to the reader in a more personal way (Kress & Van Leeuwen, 2006). Instead, ‘body parts’ are presented for visualising, as John writes, “what is going on in their bodies”. This representation positions Bonga as being both the ‘observer’ and as the ‘observed’.

John seems uncomfortable with this social distancing. He explains in his reflection that the sunset photograph and soft pink colours are meant to be “friendly”, gentle” and “inspiring” and that his artefact “encourages patients to take charge of their illness in order to prevent them, in a more supporting way, while still warning them of the dangers of the condition”. His personal connection to Bonga is less visible than that of Alexa’s, but emerges in the war metaphor explaining RHD: ‘*in some people the body can get confused between the bacteria*

and certain cells in the body and it attacks those cells as well'. This sentence appears significantly more clumsy and informal than the rest of his writing, but may represent an effort at colloquialism. While it suggests an attempt to identify with Bonga at his level of 'social talk', it also underscores their social inequality.

7.6.4.2 Participation: being scared into adherence

Offer and demand propositions are useful to encode expectations of participation. In layout, this is realised through degrees of interactivity (Bezemer & Kress, 2008). John's pamphlet only needs to be opened; it then offers information displayed on the front and back which can be accessed if, John writes, "one was interested in the disease". In the written mode, the information is generic and offered as 'possibilities', with the only demands referring to getting bed rest, taking penicillin, and going to the doctor when certain symptoms appear. These modal resources position Bonga as being passive, an interested onlooker rather than an active participant, and as someone who is generally on the receiving end of things. Unlike Alexa, it does not seem as if he expects Bonga to become an activist or even to take control of his social situation; rather, he tries to find ways of lessening his burdens, as "taking one more thing off his mind could be a relief for him, even if it is a small relief".

John's dilemma is familiar to many doctors (Levin, 2005; Deumert, 2010): he may recognise Bonga's inability to change the circumstances that affect his adherence, but he nevertheless feels a professional responsibility to do something (Pilnick & Dingwall 2011), even if it just to warn Bonga of the terrible consequences of his disease progression. John's visual content (damaged valves) suggests a 'protection motivation' approach to health education (MacDonald, 1992), and his tentative stance in his writing may be an attempt to soften the message so as not to scare him.

7.6.5 John's summary

Whereas Alexa's design creates highly personalised representations of both medical and lifeworld knowledges, aimed at empowering Bonga with knowledge to do something about his situation, John stays with biomedical factual 'realities' that will help Bonga understand why he has to remain compliant. Within this paradigm, he tries to build a therapeutic alliance and bond with Bonga, to the best of his ability. However, even though his artefact doesn't reflect this view, John understands the need for a holistic perspective which includes

consideration of the social determinants of health. In eliciting Bonga's experience of RHD (being laughed at and marginalised, becoming a teenaged substitute parent), John cannot help but view Bonga as a victim of his circumstances.

The level of hedging in this reflection makes it difficult to interpret John's 'interest' at the level of words or clauses. A reading at thematic level suggests that John may feel powerless to contribute any meaningful advice beyond mere medical facts. Power is defined as "a relational co-constructed process and represents a potential to exert influence" (Nimmon & Stenfors-Hayes, 2016:2); John does not realistically expect Bonga (or himself) to have any meaningful influence in this situation. The fact that he offers a variety of 'choices' in his content (even though these measures are practically of little value to Bonga) may be the only way he can demonstrate 'shared responsibility and common therapeutic goals'. In trying to juxtaposition the power balance between patient and doctor, he is almost apologetic, writing that "my pamphlet aims to empower patients through knowledge of their disease, although also has some direct advice and instructions". In other words, he does not yet understand how to exercise his professional authority in a non-authoritarian but effective manner.

7.7 Conclusion

This chapter has focused on students' communication behaviour in the context of apartheid's legacy of socio-economic disparity. It also demonstrates how "(l)anguage, ethnicity, race and socio-economic factors are all interlinked" (Levin, 2005:8). Bonga's story makes a strong argument for a biopsychosocial understanding of disease and its consequences. He was not 'merely' ill: his disease also fragmented his life and robbed him of a family, an education, a social life and economic opportunities towards a better future. The students' interaction with Bonga forced Alexa and John to widen their 'field of vision' beyond the 'clinical gaze' and to develop a different take on 'non-adherent' behaviour.

Taking a biopsychosocial approach to a patient's clinical history can be likened to framing a patient as 'text', where the student 'reads' the patient in a more holistic manner. The patient's story becomes the focus, rather than the disease, and within this personal story "a specific clinical narrative is embedded" (Bleakley & Bligh, 2008:105). Since doctors don't always recognize or understand the barriers to nonadherence (Penn, Watermeyer & Evans, 2011), foregrounding the patient's lived experience of the disease may help to balance the

perceptions and needs of both doctor and patient where they differ. Alexa and John's reflections show that even though they employed different coping strategies, both students became more sensitized to lifeworld challenges as social determinants of health, and in their own way sought to establish an 'empathic connection' (Levin, 2005).

However, such sensitization should not occur without a consideration of the impact it has on student's development of professional identities. Students develop their take on authority in situated communicative practices (Tracy & Naughton, 1994) among seniors, peers and patients. Analysis of students' artefacts (even those beyond the scope of this report) suggests that students seem insecure about exercising authority. This may be due to their sensitivity regarding ongoing injustice and health disparities while human rights are being foregrounded in the classroom, or they may experience inner conflict regarding the way clinician-teachers role-model authority (Draper et al., 2012a). It may also result from teaching shared decision-making as 'patient-centred' without providing nuanced or contextual interpretation of what power-sharing means (Lee & Lin 2010; Pilnick & Dingwall, 2011). Both Alexa and John are aware of their legitimate institutional power and their responsibility to ensure the best possible outcome for Bonga. Being exposed to Bonga's challenges, his inability to exert any meaningful influence, and his resignation to this fact means that their handling of power becomes less about paternalism or patient autonomy, but about "deciding where the balance should be struck" (Pilnick & Dingwall, 2011:1379).

This analysis supports Nimmon and Stenfors-Hayes' suggestion that patient-centredness is about a "handling of power that is not always as straightforward as 'sharing' per se, but is in fact context-specific" (2016:7). This finding suggests a need for practical and reflective curriculum activities with an explicit focus on power and inequality in the health system. Reflection on both the hegemonic dominance of biomedical culture as well as on a doctor's role and accountability may help students to find and exercise their own 'voice' and learn how to handle power in different communication encounters.

Framing the patient as text (in other words, eliciting and understanding the patient's lived experience of their illness) also counters 'absolute power' in medical interaction. A 'close' reading does not objectify or disembodify the patient, whereas the biomedical 'clinical gaze' is "a technology of power by which the object (the body) becomes visible and thus knowable to the observer (Gibson, 2004:2014). Bleakley and Bligh believe that

the text is always greater than both its author and reader, offering a ‘surplus’ that remains beyond interpretation; and the text is always in the process of being (re)written. This places the reader, such as the student, in a position of uncertainty that must be tolerated, involving a level of ‘unknowing’. Students must then develop what Keats referred to as ‘negative capability’ – suspending the desire to ‘master’ the text and tolerating the ambiguity of not knowing (2008:103).

This chapter has demonstrated that a patient-centred approach requires “negotiation of world views, an appreciation of patients’ lifeworlds and sensitivity to contextual factors” (Penn, Watermeyer & Evans, 2011:316). It also requires an awareness of the subjectivities and beliefs – the ‘interest’ – of the ‘doctor-as-person’ (Mead & Bower, 2000). Pillay and Kathard plead for students to ‘venture out’ to learn in contextually-relevant settings, warning that in Western-colonised curricula “race, language – even poverty – may be presented as overwhelming, challenging, impossible, lacking systems, filled with entrenched real barriers, language, resource constraints, and workforce limitations” (2015:215). Even though these challenges may seem daunting, they represent the social context within which many patients live, work and seek medical care. As such, they underscore the political nature of patient-centred communication and the need for problematizing entrenched and ‘tidy’ definitions of patient-centeredness.

7.8 Post-script (notes from the research interview and thereafter)

After his interview with the students in 2012, Bonga continued to fail grades. At the age of 20, his father died and as his mom could not afford his school clothes any more, he gave up on pursuing an education and dropped out of school. He found a job at a garage, but the two to five clinic visits per month eventually became too much for his boss, and Bonga was dismissed. During the time of his research interview in 2015, he was temporarily managing a spaza (neighbourhood) shop. Despite everything, he seemed quite positive about his life and upbeat about the future, laughing and saying “Ja, I’m just keep looking, looking and put CVs everywhere”. Unfortunately, this was not to be. Barely a month later, this amazing, sensitive and inspiring young man inexplicably went missing, and his relatives and neighbours have not seen or heard from him since then. He was only 21 years old.

CHAPTER EIGHT

Conclusion

8.1 Overview of research principles and design

This study set out to understand the phenomenon of patient-centred communication within the South African health context, by interrogating how it is operationalized by medical students in a health education encounter. As future doctors, students have a vested interest in patients' adherence to prescribed treatment protocols. To provide personalised and targeted medical advice, students conducted a history-taking interview with patients suffering from rheumatic heart disease. They drew on practices such as building relationships and active listening (Illingworth, 2010) to understand the patients' needs and challenges, and then realised their 'message' as purpose-designed health education artefacts. These artefacts are considered instances of patient-centred communication, in that they represent "content knowledge to be shared by the patient and doctor, underpinned by an attitude of respect for the patient as an individual, and acceptance of the value of a more shared approach" (Illingworth, 2010:119).

I have argued that multimodal social semiotic theory is particularly useful for analysing and describing these student artefacts as instantiations of meaning-making. Students' personalised and purpose-designed multimodal health education artefacts represent their 'interest' at that moment (Kress, 2003). Students' reading of their audience and their responses to this audience draw on their discourses and identities as health care professionals and as citizens of other lifeworlds (Cope & Kalantzis, 2000). We have seen that students' design work is agentive (Kress, 2003) in that they repurpose and therefore transform both discourses and semiotic resources for meaning-making. Providing health education through multimodal artefacts makes semiotic resources available that allow students to express things that may be difficult or impossible in speech, and encourages reflection on what is most apt in a specific situation. Aimed at empowering patients, these personalised artefacts are meant to act as learning resources, developed through a process of purposeful recontextualisation (Bernstein, 2000). Underpinning students' designs are both epistemic and relational considerations (Bernstein, 2000).

The epistemic and relational dimensions of students' meaning-making were explored in relation to two research questions. The first question, on what counts as meaningful RHD knowledge in a specific situation, explores students' engagement with and understanding of patients' lifeworlds, needs and challenges. Their insights were formed during the history-taking interview, where they were meant to pursue a holistic, biopsychosocial understanding of the problem and elicit the patients' perspectives (beliefs, fears and concerns) to identify what knowledge would be most important and most valuable to each patient. Since the 'medical priorities' might not necessarily be the same as those of the patient, what counts as knowledge was meant to be co-constructed in a 'therapeutic alliance' where both parties' concerns were accounted for.

The second question, on what counts as 'empowering' interpersonal relationships, explores students' notions on the roles and responsibilities of doctors, patients, family members, the healthcare system and even broader society. The patient-centred approach requires the physician to develop a relationship with their patient which is built on mutual trust (Hartman et al., 2001; Stewart et al., 2003). Being 'trustworthy' means not only that the doctor is 'credible' as an expert, but also that he or she creates the type of environment in which patients feel supported to convey their concerns and participate in decision-making should they wish it (Epstein et al., 2005; Illingworth, 2010). The patient-centred model explicitly encourages a shift away from traditional hegemonic practices to foreground patient autonomy.

Whereas the first objective of this research is to understand what counts as patient-centred communication from the students' perspective, the second is to anchor their communication practices within the South African context and contextual challenges. Therefore, artefacts that foreground commonly-occurring areas of tension were chosen for semiotic analysis. These include language barriers between students and patients, micro-cultural values differences on an institutional level and socio-economic inequality at a broad societal level. The research is explorative rather than evaluative, and the examples that are presented aim to foreground tensions that occur in clinical settings rather than trying to demonstrate 'best-practice', or, how patient-centredness supposedly should look.

8.2 Discussion of findings

To explore the phenomenon of patient-centred communication during these selected student-patient encounters, a deep analysis of selected data sets was done. The findings support a greater appreciation of patient-centred communication as a ‘complex vision’ (Epstein et al., 2005:1524). They also illustrate the resourcefulness and flexibility that characterises medical students’ communication behaviour. What may appear as a relatively simple task — providing a specific patient with meaningful advice on RHD — is extremely difficult when accounting for individual contexts and lifeworld challenges. In the following section, insights emerging from this study are discussed in relation to the two research questions.

8.2.1 Patient-centred communication: what counts as ‘knowledge’?

A student’s selection and representation of knowledge content follows a process of developing a biopsychosocial perspective of the problem, understanding the patient’s perspective, and then co-constructing a shared perspective or ‘therapeutic alliance’. The extent to which students could converse in a shared language during the patient history-taking interview played a pivotal role in how they operationalised these elements.

Where a profound language barrier existed, students were not able to conduct an exhaustive patient-centred interview, and therefore could not construct a biopsychosocial framework from which to build a shared understanding of the problem. They did not know what their patient’s concerns were; for this reason, they could not ‘co-construct’ what counts as knowledge but defaulted to providing generic biomedical content that was not important to their patient. Furthermore, in the absence of a shared language, students responded with oversimplification both in their selection of content and how they represented and organised meaning. Thus, their patient not only misunderstood the core ‘message’ but found the information largely irrelevant.

This case showed that, whereas “the Western Cape Provincial Languages Act (1998) impels government institutions to provide services to the public in the three official languages of the province (Afrikaans, English and isiXhosa)” (Deumert, 2010:56), a deficit view of language diversity surfaced that counters existing language policies. Students’ comments also suggested a sense of complacency, perhaps as a consequence of ‘getting by’ medically during the interview (Deumert, 2010). Since African language curricula taught at medical

school prioritise vocabulary, phrases, questions and responses that address medical topics, patients' attempts at raising their own agenda may not always be recognised or encouraged, and patients' lifeworld experiences and concerns may become relatively more 'invisible' (Gibson, 2004). The teaching of communication cannot be separated from local and national ideological and political concerns, and findings point to the need for interrogating to what extent the medical curriculum is prioritising these concerns adequately.

In the instances where students and patients could converse in a shared language, the individual elements of patient-centredness became more visible in students' communication behaviour. The findings related to students' constructions of 'knowledge' are organised in terms of three elements of patient-centredness: taking a biopsychosocial approach, valuing the patient's perspective, and 'co-constructing' knowledge. I will look at each of these in turn.

Firstly, students' history-taking generally demonstrated a commitment to developing a biopsychosocial understanding of the problem. This is not surprising, since the patient-centred model teaches history-taking and interviewing skills in the form of a 'template', but it is nevertheless encouraging to see students engaging with this framework in clinical settings, especially in light of biomedical hegemony in the clinical years of the medical curriculum (Hartman, 2014). Students' appreciation of the biopsychosocial approach also manifested in their design choices. Their content selection and representation of what counts as RHD 'knowledge' drew (even if only in some small way) on a more holistic understanding of the patients' world. For example, stigma was recognised as an important topic, adherence was communicated through child's play, and contested knowledge constructs were legitimised through selecting text types that were socially more 'acceptable' to patients.

Taking this holistic approach was not without pedagogic risk; it impacted on what could be 'said' as well as the credibility of what was said. The various artefacts made for Ms Tsetando demonstrate that while shared culture and micro-cultural groupings may be a powerful resource for meaning-making in the context of diversity, culture is complex; it is not a 'template' that can be applied in a mechanistic way to legitimise certain facts or approaches. Secondly, the students demonstrated that they valued the patient's personal perspective of the problem. This is a profoundly patient-centred principle because it counters the assumption that the doctor's perspective is more 'factual' or 'objective' and therefore more

important and relevant. Students' notes showed that they had not only tried to elicit their patients' beliefs, feelings and fears during the history-taking session, but had reflected on them extensively during the design process and had shaped their semiotic choices accordingly. However, this aspect of their patient-centredness was often more explicitly visible in their reflections than in their artefacts. In other words, what became 'externally' visible to their patients did not tell the full story of students' patient-centred discourse. For example, Alexa and James both grappled with social stigma in their reflections but only Alexa included stigma as legitimate epistemic content in her artefact. Both tried to see the world from Bonga's perspective, but neither of them knew what to do in the face of overwhelming socio-economic challenges. Finding themselves in an impossible situation, Alexa responded by inventing fictional support structures while James simply avoided talking about it at all.

This finding suggests that these students' attitudes or beliefs were orientated towards a patient-centred philosophy, even in instances where their knowledge constructs fell short of meeting the patient's information needs. The gap between a student's 'inner' patient-centred attitude and what becomes 'observable' in a communication encounter is likely to widen in challenging situations, and this finding has implications for the extent to which one can reliably assess patient-centred communication.

Thirdly, in attempting to 'co-construct' knowledge, students' choices were unpredictable and unconventional and could not be taken only at face value. For example, Neli and Beyoncé's artefacts contributed significantly to Ms Tsetando's understanding of RHD, but their real value lay in the students' overall strategy rather than in a narrow assessment of the factual content. Neli dealt with Ms Tsetando's lack of trust and non-adherence by responding with focused biomedical facts. Beyoncé's artefact contained almost no factual content yet presented a powerful argument in terms of choice and personal accountability. Patients' responses certainly suggested that information has little 'objective' value; it is only valuable when it is personally relevant in some way. Clearly, the relationship between demonstrating a patient-centred outlook and what is offered in return as 'empowering knowledge' across different circumstances is highly complex, and students' responses cannot easily be 'standardised' in accordance to some kind of formula or description.

In their attempts to synthesise a shared understanding of the problem and the way forward, the students 'cloaked' their argument in the patients' own physical experiences and social behaviours (achy joints, missed clinic visits) as a way of supporting a specific argument, and their patients mostly responded positively to these strategies. It seemed to add a physical legitimacy or 'embodied' reality to factual knowledge; Ms Plaka immediately drew a connection between Rosie's broken heart, held together with a safety pin, and the staples she had received during her valve surgery. However, students seem to hold assumptions that certain experiences or resources for sign-making are universally shared or understood. These assumptions may be relatively harmless, for example, when Beyoncé drew on 'universal meanings' of colour. In other instances, students' assumptions had more serious consequences. Ms Plaka misunderstood the core message of penicillin adherence because she did not understand the 'meaning of arrows' in the flow diagrams. Because Bonga could converse with them in English, students overestimated his ability to read and understand certain concepts. Neli omitted the fundamental link between RHD and valve disease because of her assumptions regarding her patient's tertiary education and use of the internet.

The findings related to 'co-constructing knowledge' point to the need for more explicit engagement with socio-cultural diversity in communication teaching and learning, so that students are sensitised to the potential for a different interpretation and its consequences. These findings also highlight the risk of patients' knowledge gaps becoming entrenched and more difficult to identify, because patients pick up and use medical jargon while "the meaning that doctors and patients attach to medical terms often differ" (Blitz, 2000).

In exploring students' construction of 'knowledge', it is evident that even though the students express a desire to empower their patient through education and sharing information, students' primary interest is adherence to treatment. Students express shock when they encounter patients' level of ignorance after years of treatment, but are nevertheless willing to settle for 'blind adherence' when there are obstacles that seem insurmountable, such as language or socio-economic barriers. This suggests that students consider 'knowing to adhere' as being a type of knowledge. This finding points to a hegemonic 'blind spot' which may be understandable from a clinical point of view but is not in line with the philosophy of patient-centred communication. At the same time, students seem to have expectations that health education results in treatment adherence.

8.2.2 Patient-centred communication: what counts as ‘empowering’ relations?

In a patient-centred encounter, agreement regarding the nature of the therapeutic problem is followed by decisions on what to do and what the role of each stakeholder is in moving forward. These roles and accompanying responsibilities are intricately linked to underlying power dynamics. Students’ notions of power and empowering relationships are made visible through their semiotic choices in the ways they represent authorial credibility and engagement with the patient and significant others. The findings related to these selected cases suggest that the students struggle with how to ‘handle power’ and how to engage with patients in ways that are truly ‘empowering’. The research suggests that students’ interpersonal relations are embedded in other systems characterised by power asymmetry, and raises questions on the suitability of the patient-centred model in the context of extreme language, cultural and socio-economic diversity.

The first element of patient-centred communication that is relevant to ‘empowering relationships’ is that of developing a therapeutic alliance, a bond between doctor and patient built on trust and mutual respect. This study demonstrates the complexity of and nuances related to relationship building across different and challenging contexts. Interpersonal ‘bonding’ between student and patient seemed more likely when students held perceptions of concordance (such as shared micro-cultural values or education, as was the case with Ms Tsetando), while bonding was inhibited by perceptions of discordance, for example in the case of language barriers. The students’ attempts at ‘bonding’ are seen in a range of semiotic choices. These vary from overt personalised written or visual ‘messages’ in the artefact addressing their patients directly, such as Beyoncé’s gift box note, and subtle affective signals that were nevertheless strongly motivated in students’ reflections, such as John’s soft pink background colour. Students also recognised the importance of family and communities in constructing empowering relationships. They drew explicitly on a ‘relational culture’, or “the processes of interdependence and interconnectedness among individuals and groups and the prioritization of these connections above virtually all else” (Pasick et al., 2009:24S).

Seeking a personal connection sometimes had unintended and negative consequences for designing health education artefacts. Some students’ selection of text type was based primarily on its connection to the patient’s lifeworld, rather than on a text’s suitability for representing medical information coherently. Nosipho’s version of *Drum* magazine is a good

example; it encouraged haphazard framing of information in various popular genre types and detracted from delivering a clear message that was useful to the patient. This prioritising of ‘form’ over ‘content’ was also seen in many of the student artefacts that were not included in the final data selection. Even though these artefacts were often deemed useless from an information perspective, they seem to suggest that students placed more value on relationships and building trust through personal connection than through knowledge empowerment.

While Ms Tsetando was outspoken regarding her right to challenge the conventions of the health care system, it is not clear from the other students’ history-taking notes whether or to what extent they probed their patient’s autonomy preferences. Students may hold preconceived notions and assumptions regarding ‘empowerment’ based on their own social experience of the world. They risk applying these norms to patients without understanding patients’ vulnerability, for example, the well-intended ‘activism’ advice given to Bonga seems to draw more from Alexa’s own position of privilege than Bonga’s experience of the world. In the case of Ms Plaka, where communication was limited to ‘medical questions and answers’ in isiXhosa, students sidestepped her autonomy preferences completely; they did not have the language skills to enquire further and perhaps did not regard it as being that important since she was already ‘compliant’ to her treatment regimen.

The second element of patient-centred communication relevant to ‘empowering relationships’ relates to decision-making and sharing power. One of the most interesting findings of this study relates to the students’ expression of their own authority as future doctors. Pilnick and Dingwall see doctor-patient power asymmetry as being inevitable, in the sense that

accountability rests with the prescribing doctor... Medical practice, then, necessarily involves doctors finding a way of invoking professional authority (2011:1379).

Medical students’ credibility as ‘persons in authority’ are dependent on their credibility as ‘experts’, and their construction of a ‘trustworthy ‘voice’ is constantly being shaped in communication with both peers and ‘outsiders’. Even though the students in this study differed widely in how they realised credibility, some exhibited obvious signs of discomfort around invoking professional authority, such as taking a defensive or even apologetic position.

When confronted with language barriers and a patient who did not have the tools to question decisions or set the agenda, the students adopted a biomedically-orientated and somewhat paternalistic approach in line with traditional practices on the clinical platform (Hartman, 2014). Compared to their peers, the two students who encountered language barriers drew more explicitly on semiotic representations of medical professional identity (for example stethoscope or dress) to claim credibility and authority, and their advice related to a simplistic telling of ‘how it is’ and what should be done. However, their reflections suggest that they were uncomfortable with taking this stance in a patient-centred curriculum activity and felt that they were ‘forced’ into it because of the language barrier.

At the same time, the encounter was complicated by uncertainty about whether the patient was in fact on the right treatment. Instead of checking the facts, they took measures to avoid personal accountability, for example, Rosie constructed a pretence of ‘choice’ while Miriam engaged hedging tactics to avoid explaining discrepancies. Their texts seem to realise a superficial or ‘fake’ authority, in that their advice has the appearance of being credible but avoids specificity. Under different circumstances, this type of hedging could have serious consequences. These two students’ attitudes may easily be attributed to their being students, had it not been for the incident where Ms Plaka’s own doctor left her with the misconception and guilt that her use of ‘snuff’ had damaged her valve, possibly to avoid a time-consuming consultation due to the language barrier. This finding highlights the conflict between encouraging ‘patient-centredness’ at an interpersonal level and prevailing systemic hegemonic patterns.

Ms Tsetando, on the other hand, represents the ‘perfect’ type of person for demonstrating a patient-centred relational approach. The students who interviewed her encountered a knowledgeable and empowered person who would not hesitate to challenge their authority. She did not present with language and educational challenges, she was an enthusiastic learner and students could find no ‘obvious’ reason for her non-adherence, which challenged them to deeper reflection on culture. In their ‘handling’ of interpersonal power relations, all three students signalled respect for their patient’s autonomy preferences by recruiting other significant ‘voices’, and students relied on the framing of the message to signal credibility. Neli and Nosipho both took an emphatic stance in the written components of their texts, but the framing within different text types allowed Neli to express a more authoritative and credible ‘voice’. Unfortunately, Nosipho foregrounded the autonomy preferences of her

patient to the extent that her message had no ‘truth value’. The low modality of Beyoncé’s message is also misleading, as her credibility resides completely in Ms Tsetando’s own experience and is therefore uncontested.

Alexa, John and Bonga were roughly the same age and could converse in English. However, the students’ position of privilege stands in stark contrast to the hopelessness of Bonga’s circumstances, and the awareness of this asymmetry filters through in their artefacts and their reflections. Both students drew on medical discourse to speak ‘as an expert’, but they differ in how they inhabit their respective position of authority. Alexa combined an emphatic stance with a sense of almost paternalistic personal accountability, even to the extent that she fabricated societal support structures. John, on the other hand, seemed acutely uncomfortable with exercising his authority. Focusing only on biomedical content afforded the possibility to avoid issues of societal inequality. Using the ‘protection motivation’ approach (Macdonald 1992) enabled him to ‘do his duty’ with regards to communicating the consequences of non-adherence while disconnecting on a personal level from the ‘directive talk’ that such a serious topic would require.

It is clear from these examples that students’ handling of power varies widely and was often the source of inner conflict. It seems as if students felt that they had to justify their position of authority and resist or apologise for drawing on (bio)medical discourse, both in selecting meaningful content and in how they handled power. This finding gives credence to critics who argue that the patient-centred model views asymmetrical power as “the result of educational or motivational deficits among physicians, to be remedied by better skills training or appeals to professional conscience (Pilnick & Dingwall, 2011:1375). They argue that asymmetry is “founded in what doctors are there for” (2011:1374) and that embedded asymmetry has a functional purpose; patients actively defer to physicians precisely because the doctor is the expert. Furthermore, they argue that the conversational patterns of asymmetric encounters exist for both parties as “a way of handling the interactional difficulties of the doctor-patient encounter (2011:1376).

The doctor’s awareness of his or her own subjectivities and the potential impact on the patient encounter is seen by many as a fifth dimension of patient-centredness (Mead & Bower, 2000). The medical curriculum should therefore also account for the development of the doctor-as-person (Mead & Bower, 2000). The findings of this study caution that, in

trying to redress historical inequalities and institutionalised ‘silencing’ of patients, curriculum designers and policy-makers should guard against inadvertently ‘stigmatising’ the authority invested in the doctor. Teaching the patient-centred model to medical students without conscious reflection on the critical role of authority, credibility and accountability in patient care may have an unintended impact on the development of professional identity among twenty-first century doctors.

Students’ notions of power reside not only in their construction of their own credibility, but also in what roles, responsibilities and decision-making, if any, are assigned to patients and their families. Similar to research done elsewhere (Verlinde et al., 2012), the findings of this study suggest that perceptions of discordance in the student-patient dyad (in language, education or social environment) may have affected the way patients were positioned as being more active or more passive, and more or less able to ‘participate’. For example, the artefacts made for Ms Plaka and for Bonga suggest a positioning of their patient as a victim of circumstance, as someone who is helpless to effect meaningful change to the status quo. At the same time as these patients were being exhorted to ‘take control’ of their lives, they were represented as being ‘less able’ using colloquial wording, the predominance of empty space and other markers of ‘simplicity’. Similarly, Alexa’s simple yet emphatic ‘calendar reminders’ on medication and clinic visits may be interpreted as a back-up plan towards achieving (at least) ‘blind’ adherence. In contrast, Ms Tsetando, described by all the students as educated, well-spoken and confident, was in every instance placed at the centre of decision-making.

Since students had not explicitly probed for or reflected on their patients’ autonomy preferences, it is not clear to what extent their choices reflected a conscious decision. Of course, the interview data from patients who were perceived by students as being more ‘disempowered’ show that these patients assumed active roles in other settings: Ms Plaka worked tirelessly as a health activist in her own village, and Bonga fought in his own way against institutional bureaucracy. Unfortunately, students rarely see or experience these acts of activism and resistance. The medical curriculum in its current form does not expose students to patients beyond narrow, asymmetric interactions within a controlled medical environment. It’s not surprising that students’ communication behaviour tends to be reactive (responding to the immediate communication challenges that present in this artificial setting

to the best of their ability) rather than proactive (transcending its limitations to really ‘see’ their patients as people, as part of communities).

It is likely that this ‘poverty of exposure’ to the social, economic, cultural and language diversity of real world contexts could encourage the development of deficit views. For all their attempts at creating a ‘bond’ with their patients, this study demonstrated a disconnect between these medical students and their patients; a disconnect with its roots in historical societal inequalities and which finds utterance in the power relations between student and patient. Students should be encouraged to engage actively with inequality and diversity, and this requires

the development of an orientation—a critical consciousness—which places medicine in a social, cultural, and historical context and which is coupled with an active recognition of societal problems (Kumagai & Lyson, 2009:782).

8.3 Research implications and recommendations

This study makes recommendations regarding communication in the MBChB curriculum, contributes to debates on patient-centred communication and ‘decolonisation’ of the curriculum, and has implications for health promotion in the context of RHD. The study also makes a contribution to the field of multimodal social semiotics at an empirical level.

8.3.1 Communication as complex vision: responding through curricular reform

The adoption of the South African version of CanMEDS (HPCSA, 2014) has necessitated a review and reformulation of the learning outcomes, activities and evaluation of communication competence at this medical school. This process has raised questions regarding how we teach, what we value ideologically, who we admit to the MBChB Programme and to what extent our Programme is producing fit-for-purpose doctors. Communication is primarily taught in the pre-clinical years using the patient-centred framework of the Calgary-Cambridge Guides. This study explores how a group of selected students in their clinical years operationalised these principles once they started to interact with patients on the clinical platform. The greatest significance of this study’s findings lies in highlighting the complex, multifaceted, multi-layered nature of the doctor-patient encounter.

Acknowledging this complexity may encourage greater realism among curriculum designers and educators on what can be taught or assessed. The study's findings suggest in addition to theoretical principles and process skills, more input and feedback is needed to sensitize students to culturally-significant verbal and non-verbal cues. This type of learning may even be taught and assessed using Simulated Patients. Communication in unscripted encounters with patients, however, requires diverse and integrated knowledges and attitudes – 'ways of being' – that manifest as multiple nuances and layers of meaning-making unique to every situation. In patient encounters on the clinical platform, the hegemonic practices and time constraints inherent to a biomedically-orientated health care system may even cause or perpetuate perceptions of cross-cultural disrespect (Bodenheimer, 2005).

To prepare students for the complexity of unscripted communication encounters, novel pedagogic approaches and methods are needed that encourage life-long reflection and critical consciousness. The Pharmacology activity is one such approach. It provides opportunities for theoretical learning, patient engagement, transformative practice and reflective work as well as texts and assessment guidelines that account for students' 'responsiveness' to patients' needs and challenges. Theoretically framing the activity in terms of a metalanguage of 'design' (New London Group, 1995) lends academic credibility to the task of 'making artefacts'. The interactive Pharmacology workshop and the ensuing tasks create opportunities for engaging with power, identity and diversity, and stimulate vigorous classroom debates on different ethnic and micro-cultural interpretations of texts. It foregrounds the 'voices' of both students and patients. By encouraging students to draw on their own and their patients' discourses for meaning-making, membership of different types of cultural and social communities are validated as a 'resource' that is valued in academic teaching and research.

However, the long-term sustainability of 'assessing' the students' texts is questionable. This research project demonstrates just how time-consuming a deep, iterative and reflective reading is across artefact and student notes, without which complex communication strategies may be missed or misunderstood. Furthermore, buy-in is needed from colleagues who share the summative marking of texts, to reduce the chances of rewarding a student for having 'enough' or the 'right' drug information regardless of whether it responds to a patient's stated needs.

The study has highlighted a new and perhaps more feasible approach to ‘practicing’ health education communication. All ten patients complained to some extent during the research interviews that their ‘subjective’ (lifeworld) concerns are being neglected due to the doctor’s time constraints, yet patients queue for hours at clinics just to see the doctor. This wasted time is an excellent opportunity for doing targeted health education. Working in pairs or small groups, students may be able to manage regular, time-tabled health education consultations with intermittent support from clinicians. There are potential benefits for both students and patients. Patients may be able to discuss their fears and ask questions until they are satisfied. Students may be able to practice health education in a supported environment. Even though each student-patient interaction would be unscripted and therefore different, students could prepare somewhat by doing revision of the drugs, side effects and disease knowledge relevant to the clinic they are attending. The potential for developing this as a formal curriculum activity is currently being explored. Other recommendations concern the need for developing the ‘doctor-as-person’ (Mead & Bower, 2000) by providing structured guidance, mentoring and reflection on topics such as personal authority and accountability.

This study also makes a significant contribution in highlighting the importance of subjects that traditionally have a ‘lesser status’ in medical programs, such as health promotion, social justice in health, health human rights and the African language courses. Learning a language at medical school is relatively new in South Africa and competes with well-established clinical and science subjects for resources, which include curriculum time, funding and even the student’s attention. However, there are other ways of raising the status of languages and encouraging language proficiency, for example by utilising the Admissions Criteria for prospective medical school applicants. In re-valuing communication as a core competency, it seems reasonable to ask that, in the same way that value is assigned to applicants’ scores in mathematics or physics, credit should be given for proven conversational competence in a specific region’s dominant African language.

Quota-based selection processes are used in most South African universities to redress the historical exclusion of black and rural students. Due to the quality of education in some public schools, some students require an additional year of academic support in literacy and numeracy, and many view this extra year as stigmatising. On the other hand, some medical students graduate as doctors even though they can barely communicate with a large proportion of their patients. By mandating an additional language support year for all

medical students who do not speak the regional African language on entry to university, the status of African languages may be raised to that of English and mathematics. Furthermore, perceptions of stigma related to academic support are likely to be minimized or at least equally shared among students from less and more privileged backgrounds. Language-focused admission criteria for applicants and extended language support programs for first-year students are likely to have a ‘ripple effect’ on African languages curricula offered at high school level, in that secondary schools (some of who already offer Advanced Programs in English and mathematics) may invest more funding and development into African languages curricula.

8.3.2 The patient-centred model: critiquing embedded ideologies

This study contributes to the corpus of research on patient-centred communication. That the patient-centred model now has an ‘international definition’ (Stewart et al., 2003) is proof enough of its popularity, but while its suitability has been explored in other non-western cultures, for example in Asian populations (Claramita et al., 2013), little research has been generated from the African context.

During the writing of this chapter, most universities in South Africa were shut down by protesting students calling for free and decolonised education. What started with a rejection of colonialist symbols by the #RhodesMustFall movement in 2015 soon gathered momentum as a much greater cry for recognizing the alienation that black students still experience at tertiary institutions. The occupation and disruption of classes, and the subsequent militarization of campuses with armed private security to protect the ‘academic project’ revealed not only fractured relations between and among staff and students, but for many also brought the realisation that we are still struggling to define who we are as a nation in a post-colonial, post-apartheid era. Despite the ‘Rainbow Nation’ epithet, South Africans must acknowledge these deep divisions and question what this means for teachers and curriculum designers in an African university. The placing and timing of this study within the current national ‘decolonisation’ discourse encourages critique of entrenched assumptions, which in turn stimulates healthy debate.

In much of popular and social media, ‘decolonisation’ is often caricatured as a rejection of science and a return to practices predating current advances in science and technology. ‘Decolonisation’ discourse requires a critical reflection on the history of peoples and

embedded power structures, as well as on the structures, processes, texts and knowledges that continue to shape that nation's future. 'Decolonising' a medical curriculum is really about putting Africa and the health needs of its people first, by asking: "How will this knowledge serve population needs and the inherent inequities?" (Pillay & Kathard, 2015:213). Within this context, the suitability of the patient-centred approach for teaching and learning communication must be questioned. The patient-centred model was developed to operate at an interpersonal level to guide individual practitioner-patient interaction and at a systemic level as "a comprehensive way of delivering health services" (Saha, Beach & Cooper, 2008:1276), and the patient-centred interview method derived from this philosophy. However, this research suggests that the patient-centred approach does not entirely account for the South African historical, political, economic and social climate, either on a practical or on an ideological level. Rather, an uncritical implementation of the patient-centred model in communication training may disempower both student and patient in different ways.

In this study, the disempowerment of patients in the health care system was most acutely demonstrated in the context of language difficulties. English is the mother tongue of less than 10% of the population; which language is most used depends on the specific demographic region (Statistics Africa, 2016). Furthermore, three hundred years of imperialism, colonialism and apartheid has led to a situation where language, race, ethnicity, poverty, education, economic disparity and social inequality are all interlinked and in some way, affect people accessing public health care. In western countries where most of the research on patient-centredness originates, language barriers predominantly affect minority and immigrant groups, and patient-centred strategies revolve around the use of additional resources such as trained interpreters (Sudore et al., 2009).

In South Africa, trained interpreters are rare in poorly-resourced health care settings and the use of family members, nurses and even bystanders and cleaning staff as informal, unpaid, untrained impromptu interpreters is common-place (Coovadia et al., 2009; Deumert, 2010). This situation lends itself to moral and ethical dilemmas, such as violation of patients' right to confidentiality. Patients and staff that are drawn into impromptu interpretation involving breaking bad news or sensitive personal and cultural beliefs shoulder an emotional burden and responsibility that they were not trained for (Crawford, 1999; Deumert, 2010). Since health budgets are severely taxed by South Africa's HIV epidemic, poverty-related illnesses such as malnutrition and the growing burden of non-communicable diseases such as diabetes

(Coovadia et al., 2009), it seems unlikely that government will fund wide-spread interpreting services soon. Other possible interventions such as internships for graduates in linguistics are still a long way off. Language barriers continue to disempower those who are already poor and marginalised and to reinforce harmful hegemonic practices, yet in the literature the patient-centred model seems to recognise language discordance as “just one of many issues in cross-cultural communication without providing any solutions or prescriptions” (Gasiorek & Van de Poel, 2012:371). For example, practitioners are encouraged to know “a few words of the language of the patient” (Paternotte et al., 2015:424), as it has been shown to support relationship building in cross-cultural communication.

While this statement is certainly true, consumers of the patient-centred approach should keep in mind that this advice is not meant for situations where ‘bits’ of shared language constitute the primary tool for information-gathering and co-constructing of knowledge. It also does not account for cultural respect practices such as ‘hlonipha’ (Crawford, 1999). Curriculum designers and policy makers should rather question what impact limited language proficiency is likely to have in an environment where patients cannot communicate their concerns, see a different provider every time and then only have access to a few minutes of consulting time. Arguably, there are practitioners who believe that

[w]illingness by the doctor to ‘muddle his/her way through Xhosa’ might also leave the caregivers feeling that their inability to speak English is not the problem within the clinical interaction, but rather that the problem is a shared one and that the doctor and the bigger health care system also has certain flawed abilities” (Cilliers, 2005:159).

Ultimately, it is a question of what level of ‘muddling’ is taking place and what consequences result from instances of miscommunication. The patient-centred approach to communication cannot be separated from the health care system. Saha, Beach and Cooper point out that

the notion of “seeing through the patient’s eyes” has become perhaps the most concise description of patient centeredness, and has led to several outgrowths of the early patient-centred movement. It may have been, by sincerely looking through the patient’s eyes, that it became clear there is a great deal more to fix in the healthcare system than the interaction style of its practitioners (2008:1276).

In the medical curriculum where this study data emanates from, the patient-centred approach is located within the PHC philosophy, a larger dispensation that goes beyond the individual to privilege community and population perspectives. However, compared to availability of

patient-centred communication methods and tools, the ‘methods and tools’ that realise community and population perspectives, such as rural and community clinical placements, are either tied to government policies and inter-institutional agreements which have not yet been put in place, or require financial investment outside of available budgets.

Hartman’s study demonstrated ambiguity in the curriculum blueprint’s ‘Skills’ section, strong emphasis on the Calgary-Cambridge method in the pre-clinical years with limited exposure to community health, and increased exposure to a biomedical orientation during clinical years (2014). Furthermore, the Calgary-Cambridge Guides, developed and used as the ‘centrepiece’ (Silverman, Kurtz & Draper, 2016) of a patient-centred communication curriculum “generally target native speakers rather than language learners” (Gasiorek & Van de Poel, 2012:371). Qualitative research studies are needed to explore exactly what happens to the nuances of history-taking when students translate and ‘culturally adapt’ their line of questioning and responses when they barely speak the language. What is clear, though, is the disconnect between the ideals of a patient-centred encounter and the realities of the educational and health care systems.

This disconnect has wider ideological implications. Even though post-1994 language policies “require providers to inform patients in a language they understand about their health status and treatment options... neither the Patients’ Rights Charter nor the National Health Act specifies how this should be achieved, i.e. neither is explicit about the need for interpreting services or the need to train bilingual providers” (Deumert, 2010:55). In western societies, a patient-centred approach views language competency in relation to communication with minority groups. For example, the model values a ‘diverse workforce’ by deploying more Hispanic doctors in areas where Spanish is the norm (Sudore et al., 2009). Multilingualism is not a specific ideological focus of the patient-centred model. The situation is different in South Africa, where language diversity is not only the norm but also historically associated with deficit views, and where many people who struggle with English in fact speak two or more African languages. Surprisingly, few of the doctors interviewed in Hartman’s curriculum case study prioritised the learning of African languages, and (perhaps unsurprisingly) isiXhosa and Afrikaans language teaching tapers off dramatically after the preclinical years. This situation is untenable in South Africa, where language diversity is not only the norm but also historically associated with deficit views, and where many people who struggle with English in fact speak two or more African languages.

The value assigned to African languages and cultures in educational settings has become a rallying point in the struggle against racism and marginalisation. This study contributes to identifying “the dominant epistemological, ontological and methodological bases of our professions (Pillay & Kathard, 2015:204), and suggests that the ‘imported’ version of patient-centred communication lacks the ideological ‘push’ to ensure that multilingualism takes its rightful place in medical education and in patient care.

8.3.3 RHD health promotion: recognising patient and student contributions

Although evaluating the effectiveness of students’ artefacts was not a goal of this study, the interaction between patients and stimulus texts (Törrönen, 2002) highlighted certain key principles that are useful in planning health education activities and the use of health promotion artefacts. Patients’ preferences varied depending on their own challenges and needs, but all flagged the issue of providing information in African languages, especially isiXhosa. Patients tended to identify more closely with a narrative or ‘story’ and with images that were personally meaningful. Patients also seemed to appreciate simpler wording and terminology as well as a question and answer format. One artefact that proved to be popular among all patients during the research interviews is the ‘Speaking Book’. This artefact has electronics in the book cover that allowed for the embedding of audio voice recordings, providing a narrative in isiXhosa alongside images and writing. However, despite their enthusiasm for certain artefacts, all the patients still insisted on the value of a face-to-face meeting with knowledgeable health care providers, even if these were students, where patients may ask questions and pursue answers in a private environment instead of having to talk to nurses in clinic passages.

This study recommends that pilot studies be done using the RHD Speaking Book and other selected artefacts in A.S.A.P. ‘Prevention’ initiatives. Despite extensive research in epidemiology, genetics and other fields such as antenatal screening of RHD (Zühlke, Mirabel & Marijon, 2013), little is known regarding the needs and challenges of RHD patients. This research provides a crucial patient perspective. Even though only selected artefacts were included for deep analysis, the initial reading of artefacts for data selection suggested that the overwhelming majority of RHD patients did not have much knowledge or understanding of their disease.

8.3.4 Social semiotics: articulating the principles of multimodal communication

This study demonstrates the value of cross-disciplinary research and of bringing a qualitative, constructivist lens to a Health Sciences problem. Taking a multimodal, social semiotic approach to the analysis of selected artefacts allowed for a rich description of students' work. Multimodal social semiotics is a novel approach in Health Sciences Education, and has resulted in a unique perspective on the phenomenon of patient-centred communication. This work follows on that of Bezemer and Kress, who interpreted Bernstein's (2000) recontextualisation theory as a set of semiotic principles that underpin how "ensembles of semiotic features ... shape what learning is and how it may take place" (2008:168). In exploring how those principles operate across the modes of writing, image and layout, this study contributes to their goal of articulating

a set of principles of the rhetoric of multimodal communication, in all settings, with any form of technology and all forms of media(tion), in any social environment (Bezemer & Kress, 2008:190).

This study also contributes to constructing and extending the 'toolkit' of semiotic resources that operate in different learning environments. For example, data suggest that the notion of 'modality' is particularly complex yet relevant. Modality refers to ways in which designers signal the credibility of their message, and is read in relation to what is considered 'credible' by their audiences (Kress & Van Leeuwen, 2006). The students in this study drew on discipline-specific discourses to make credible academic arguments for the sake of peers and professors, and on social/lifeworld practices to construct credibility as 'patient-centred' practitioners who 'see through their patients' eyes'. In accounting for potentially-competing student 'interests' related to these two audiences, the semiotic principle of 'modality' was expanded by drawing on Hyland's model of intersubjective positioning (2005) for exploring students' authorial stance. In this way, this study perhaps enhances Hyland's work through applying his categories of evidentiality and authorial presence not only to writing but also to image and layout.

8.4 Directions for future research

Several issues raised in the study require further exploration, for example, the relation between accountability and professional identity, and the use of the Speaking Book in health promotion initiatives. The adoption of CanMEDS has necessitated a detailed review of

MChB teaching/learning activities related to communication, and recommendations from this study will contribute to the design of the curriculum. This process of redesigning, implementing and evaluating the communication curriculum in the context of 'decolonisation' forms the major direction of future research.

8.5 Concluding remarks

This research study took an in-depth look at something that students as future doctors will do every day: providing advice to patients. It attempted to "move beyond the deficiency model—that is, proving that physicians don't do enough of this or that" (Epstein, 2006:277) to gain a rich understanding of the complexity of situated student-patient interaction. Doing this research transformed my own understanding and sense of accountability, both in being a Health Sciences educator and in being a South African. To paraphrase Freire, being a teacher requires a 'reading of the world' in terms of power and privilege and 'conscientization' towards social justice (Kumagai & Lypson, 2009:783). Certainly, this study has demonstrated that

[t]here is no such thing as a neutral education process. Education either functions as an instrument which is used to facilitate the integration of generations into the logic of the present system and bring about conformity to it, or it becomes the 'practice of freedom', the means by which men and women deal critically with reality and discover how to participate in the transformation of their world (Mayo, 1999:5)

Educational research should not only be valued for its contribution to new methods and theoretical fields. Its value lies also in the transforming of the researcher, in the contribution of the research to developing socially-responsive critical consciousness.

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Appendix A

Pharmacology Portfolio task 1: (Excerpt from Pharmacology course outline)

Rationale and learning objectives

As medical students, you understand the necessity of prescribing medications and lifestyle changes. Unfortunately, our patients often come from very different backgrounds, and don't always understand or value our advice. Furthermore, our well-intentioned advice is sometimes financially or practically impossible for some. The purpose of this task is to practice personalized Patient Education; that is, educating and empowering a patient by making clinical information accessible to your patient. Therefore, your content must focus on an aspect of clinical pharmacology that is important to your patient, such as:

- a. Effects of the drug, for example, why the drug is needed, e.g. prophylaxis, warfarin, diuretics, etc; which symptoms will disappear, and which will not; when the effect is expected to start; What will happen if the drug is taken incorrectly or not at all
- b. Side effects, for example, which side effects may occur, how to recognize them and how long they will continue; how serious they are; what action to take
- c. Instructions, for example, how the drug should be taken; when it should be taken, and how long the treatment should continue; how the drug should be stored
- d. Warnings, for example, when the drug should not be taken; what is the maximum dose; why the full treatment course should be taken
- e. Future consultations, for example, when to come back (or not) and in what circumstances to come earlier; what information the doctor will need at the next appointment

The steps of the task are:

1. Review RHD (lecture and other resources): pathophysiology, management of acute RF, primary and secondary prevention at different life-stages (childhood, pregnancy, etc), common complications and their management
2. Interview a patient with RHD: gather **detailed** information about the patient's background, disease and perspectives, and include it in your reflection and design choices. Remember that as with all portfolio tasks, this patient information is confidential.
3. Design and make a personalized artefact. You may choose any design or product. Try to keep cost and feasibility of your artefact as a health promotion tool in mind.
4. Write a critique (explaining your choices), using the Rubric as a framework.
5. Hand in (sign off) at the secretary by the end of week 6 of Mixed Rotation 2.

Assessment is done by comparing your artefact to your reflective critique. Therefore, a student that evaluates his/her own artefact critically may score well even it did not come out quite as expected.

Rubric for self-critique:

Should contain the patient's back-ground information (section A) and the rationale your choices (sections B-G).

A. Detailed bio-psychosocial history

- a. Patient's name and folder number.
- b. Psychosocial history (getting to know him/her as a person).
- c. Detailed information on the patient's understanding of the disease, management and complications
 - When was RHD diagnosed, and how (screening, episode of rheumatic fever, murmur found, complications?)
 - Was the patient put on penicillin prophylaxis at that stage? If so, which regimen: 4-weekly IMI, 3-weekly IMI, 2 weekly IMI or oral penicillin. Note penicillin allergy and alternative drug
 - Is the patient still on prophylaxis? Which regimen? How many doses did they receive in the last year?
 - If not on prophylaxis, when was it discontinued and why? If the patient is non-compliant, try to get an in-depth understanding of the patient's reasons for non-compliance and attitude to prophylaxis, e.g. clinic too far, work pressure, stigma, painful, doesn't think it necessary, etc
 - Does the patient have any suggestions for greater compliance?
 - Does the patient understand his/her condition: pathophysiology, progression, management, complications?
 - Has the patient had any of the following: episodes of rheumatic fever, congestive cardiac failure, valve replacement, problems with dental hygiene?
- d. Where does the patient go for their monthly follow-up?
- e. Brief outline of other medical conditions and medications, if any

B. Type of artefact:

- a. What type of artefact did you make, and why? (game, pamphlet, etc)
- b. How would you use your artefact to be most effective?
- c. If you included a multi-dimensional or interactive aspect (e.g. texture, sound, 3D, activity) please explain.

C. Critique the artefact's design elements:

- a. Who are the participants (actors), and what is happening (actions)? Why did you choose this idea/social context for your patient/audience?
- b. Verbal elements (includes written text and words in images)
What kind of words and writing style did you use, and why is it the best choice?
- c. Colour (including colour in images, font, background, etc)
Do the colours fulfil specific functions, e.g. mood, cultural significance, organizational?
- d. Font (size, type of font, icons, amount of text on page)
Is the text easily readable and appropriate for the intended message (e.g. sombre, fun, etc) and audience (the elderly/short-sighted, low literacy, cultural meaning)?
- e. Images (includes diagrams, illustrations, photographs, cartoons, etc)
How do the amount, type and content of images contribute to the message?
- f. Lay-out (the way the design is organized on the page)
How does the layout contribute to the message and overall impact?
How is the reading path indicated? (numbering, headings, colours, etc)

D. Critique the author/reader relationships

- a. What are the power relations between the reader and designer, and why did you construct it in this way?
- b. Are there important ethical considerations? (please explain)

E. Disease/drug information

- a. What information did you choose to include and leave out, and why? (You must include some pharmacology)
- b. In what ways did you make medical information understandable to your patient?
- c. How did you personalize the information for your specific audience? Explain
- d. Is the content factually correct?

F. Technical execution

- a. Do the different design elements complement rather than contradict one another?
- b. Is the product professional? (spelling, grammar, quality of images, etc)
- c. In your opinion, what is the role of this artefact in a real Health Promotion campaign?

G. What did you learn from doing this task?