Theoretical framework
Chapter 2
2.1 Introduction
Research on health-seeking behaviour has been acknowledged for its contribution in aiding the understanding of how and why particular practices are engaged when the need for health is realized. In this study the Health Belief Model (HBM) and the concept of Cultural Schemas were applied in guiding the line of inquiry on adults’ health-seeking behaviour for malaria and diabetes in a rural setting. This chapter presents the HBM and describes the different components of the model (section 2.2), followed by an explanation of the concept of Cultural Schemas (section 2.3). Then a conceptual framework (section 2.4) is presented which incorporates the various theoretical concepts that guided the study. The last section of the chapter (section 2.5) provides an account of the additional theories that aided interpretation of the data during the analysis process.

2.2 Health Belief Model (HBM)
‘Health seeking’ is a conditioned behaviour, so any attempt to encourage people to seek care requires an understanding of their motivation for such behaviour. Only through a deeper understanding of the intricate factors shaping behavioural practices can health promotion programmes and or interventions successfully be introduced into the realities of the people’s lives to bring about changes in health behaviour. Behaviour change theories and models such as the Health Belief Model (HBM) [1]; Theory of Reasoned Action (TRA) [2]; Theory of Planned Behaviour (TPB) [3]; and the Transtheoretical Model [4] have been widely applied in public health in an attempt to explain or predict health-seeking behaviours [5, 6]. Their use enables identification and understanding of people's health-seeking behaviour beyond their knowledge, attitudes and practices [5]. Although most of these theories and models share many of the components [7], HBM is a health-specific behavioural cognitive model [8, 9].

Originating in the 1950’s, the HBM was created by the US Public Health Service Department to explain why public health preventive services were not successful [10]. The use of the model was later expanded for insight into compliance with medical prescriptions [10-12].

The central posits of the HBM are based on the beliefs that “behaviour is a function of the subjective value of an outcome and of the subjective probability or expectation that a particular action will achieve that outcome” [13]. The model is based on the idea that people are more likely to change their behaviour [14] and adhere to treatments [10, 14] if: (i) they perceive that they are at risk of contracting the disease (perceived susceptibility), (ii) they perceive the disease might have an unfavourable outcome (perceived severity), (iii) they perceive the proposed health behaviour to be both effective and practical (perceived benefits), (iv) they perceive the barriers to adopting the behaviour to be minimal (perceived barriers), (v) they perceive themselves to have the ability of applying and practicing the specific...
behaviour proposed (perceived self-efficacy), and (vi) they have the cues for motivating their actions such as internal cues (pain, symptoms, past experiences) or external cues (advice from friends, relatives and mass media campaigns) (cues to action). The specificity of the HBM to health made it suitable for use in understanding and explaining the behaviour vis-à-vis health outcomes – and this may also explain its wider use in public health [5, 15, 16]. The HBM components are considered in this study to be useful in assessing risk perceptions with respect to malaria and diabetes as well as in explaining the individual decision-making processes as regards the health-seeking behaviour for these conditions.

The HBM has been successfully applied to predict health behaviours across several diseases and conditions among adults [10, 17-19]. Specifically, the model has been applied to help increase voluntary screening rates for cervical cancer [20] and on cancer support group participation [19]; breast self-examination [21], chronic disease management [22], adult physical activity practices [23], smoking cessations [24], predicting the uptake of vaccinations [25], HIV prevention and risk perceptions [26, 27], and osteoporosis prevention [28], to mention a few. Despite HBM being primarily a behaviour change model, in this study the HBM model is applied to explain the health-seeking behaviour of malaria and diabetes among adults. Although many studies that used the model applied the model as a whole without separating out its various components, in this study different components of the model are applied separately to examine individuals’ own risk assessment, decision-making processes, and continuity of medication use. Risk perceptions were examined by assessing the individuals’ perceived susceptibility and perceived severity of the diseases. Decision-making processes were assessed through exploring the perceived barriers and perceived benefits of adopting specific health-seeking behaviours including medication use continuity. The following sub-sections elaborate the components of the model as adapted in the study (see Figure 2.1).

2.2.1 Perceived susceptibility
Perceived susceptibility is one of the influential factors that motivate people to practice healthier behaviours. It refers to individuals’ own beliefs regarding the risk of contracting an illness; the greater the perceived susceptibility, the greater the likelihood of engaging in behaviours to decrease the susceptibility [19, p. 66]. For example, to make the decision to seek and continue with care, a person must first perceive him/herself to be as susceptible to contract malaria or diabetes. The greater the perceived susceptibility, the more likely health-seeking decisions will be made.
2.2.2 Perceived severity

This refers to individuals’ beliefs about the severity or the consequences the disease might have on him/her if actions are not taken \cite{29, p. 65}. Perceived severity is also shaped by the previous experiences with the illness and can include assessment of the health, social and economic consequences of acquiring the disease \cite{14}. In this study, people seemed to need to perceive serious negative consequences from malaria and diabetes for them to opt for health-seeking behaviour and continue with care.

2.2.3 Perceived threat

This component of the model as applied in the study refers to a combination of the perceived susceptibility and the perceived severity of the condition \cite{9, p. 22}. Perceived threat in the study is treated as perceived severity to include the perceived possible consequences that malaria and diabetes may have for the individuals if health-seeking actions are not taken. When the threat is perceived to be negative, prompt health-seeking behaviour can be expected; the perceived threat also encourages continuity with care.

2.2.4 Perceived benefits

Perceived benefit signifies an individual’s own judgment on the advantages of adopting and continuing with the proposed actions in order to reduce the severity or consequences of the illness \cite{29, p. 68}. In this context, people with malaria or diabetes needed to feel that the benefits of seeking and continuing with care were greater than if they did not; they needed to feel certain that adopting health-seeking practices would have favourable outcomes.

2.2.5 Perceived barriers

This refers to an individual’s evaluation as to what would stop him/her from adopting the new behaviour \cite{29, p. 66}. If people perceived obstacles to performing health-seeking behaviour for malaria or diabetes (for example where the proposed treatments were perceived as inappropriate for treating the specific disease or was perceived to be costly), it was less likely that a decision for health-seeking behaviour or continuing with care would be made.

2.2.6 Self-efficacy

Self-efficacy was not in the original Health Belief Model \cite{14}. The concept was derived from Bandura’s social learning theory in order to encompass individuals’ own belief regarding their capability to practice the suggested health behaviour successfully \cite{30, p. 94}. Self-efficacy is realized when perceived benefits outweigh the perceived barriers. People are normally hesitant to attempt new behaviour unless they believe they can do it \cite{31}. As such, for a person to opt to undertake health-seeking behaviour for malaria or diabetes and continue with care,
he/she must first believe in him/herself as being able to perform the specific behaviour successfully.

2.2.7 Cue to action

This is the other concept that was later added to the model[11] and it has been widely observed as an important aspect triggering people’s health-seeking behaviour and medication use [33, p. 49]. In this study, cues to action relate to information and ideas about malaria and diabetes that people have and the sources thereof, whether internal (symptoms, past experiences) or external (health care workers, friends, relatives, mass media), which influence their health-seeking behaviour and continuity with care. Cues to action are not directly linked to perceived threats, because individuals must first have perceived susceptibility, perceived severity and a higher perceived threat; then, when they develop pain or illness symptoms (cues to action), it prompts their perceived threat to trigger their decision-making processes and they thus become more likely to take action in terms of health-seeking and continuing with care. On the other hand, symptoms (cues to action) directly trigger individuals’ self-efficacy, which [also] triggers decisions for actions.

For example, an individual must feel s/he is at high risk for contracting malaria (perceived susceptibility) and believe that malaria can be severe (perceived severity) and lead to death (perceived threat). When this person experiences malaria symptom (cues to action) it prompts the perceived threat (i.e. I may die), and this triggers the decision-making processes by increasing her/his likelihood of taking actions to reduce/alleviate the symptoms. On the other hand, illness symptoms (cues to action) prompt individuals’ evaluation of their ability to take actions successfully (self-efficacy) and this in turn shapes the decision-making process by inducing health-seeking behaviour to offset the symptoms.

The HBM is one of the most highly applied theories in public health [5, 15, 16], despite being critiqued for its focus on individuals, especially in its general assumptions; i.e an individual’s perceived susceptibility and perceived severity regarding an illness are directly linked to a change in his/her health behaviour [13]. Its focus on individuals as sole decision makers that can say “I know, therefore I act” neglects other factors like social and cultural environments that shape the way people think and act [6, 15]. Thus, the model fails to allow any understanding of what motivates peoples’ decisions for either adopting or not adopting health behaviour. However, despite the critiques, the HBM has been adapted and applied successfully in informing and explaining a range of behaviours connected with health outcomes [9]. The model was useful in this study in aiding the understanding of the decision-making processes underlying health-seeking behaviour at the individual level. To address the HBM criticisms
and to further the understanding of cultural aspects shaping individuals behaviour, this study applies the concept of Cultural Schemas to accommodate the social and the cultural aspects.

![Figure 2.1 The Health Belief Model components and linkages.](as adapted from [1, p.31]

### 2.3 Concept of Cultural Schemas

The concept of Cultural Schemas was adopted in the study to make the HBM components more relevant in the understanding of the cultural and behavioural aspects in health-seeking behaviour for malaria and diabetes. The main proposition of the concept of Cultural Schemas is that people’s perceptions and decision-making processes are directly linked to their cultural context. That is to say, people’s lives exist within the contexts that influence individual behaviour and impact their ability to choose a life they want. Cognitive anthropologists argue that a cultural meaning system of any society is formed by the cultural schemas that motivate people’s behaviour and the responses they make to their life conditions. Therefore, these schemas form the reality-defining system of the human being and provide information about what states of the world can be and should be followed. According to Hutter et al., 2006 cultural schemas have four main functions that link directly to the cultural meaning system. Those functions include: “(i) representational functions that define knowledge and beliefs about the world, (ii) constructive functions which create the cultural entities that people adhere to, (iii) the evocative function to evoke certain feelings, and (iv)
directive functions that are used to direct behaviour through social pressure and external sanctions by forming intrinsic motivations to conform” [35, p. 41]. In this study, we propose that communities’ cultural meaning system and schemas inform peoples’ opinions, beliefs, perceptions and attitudes towards malaria and diabetes, which in turn characterize and motivate individual responses in terms of health-seeking behaviour. The concept of Cultural Schemas and the HBM were used to construct the study’s conceptual framework.

2.4 Conceptual framework

The study’s conceptual framework (see Figure 2.2) depicts health-seeking behaviour as interplay between macro- and micro-level aspects. The macro-level aspect of the “cultural meaning system” denotes an organized system of knowledge, ideas, beliefs, values and norms that people use for understanding and shaping their world and to cope with their life circumstances. This cultural meaning system is passed on from generation to generation through socialization and learning [36]. According to D’Andrade, the cultural meaning system is made up of shared cultural schemas that inform peoples’ perceptions, beliefs, opinions and views about their world and shape their response actions as they face both familiar and new challenges [34]. That means the cultural meaning system of the wider community (macro-level) informs the cultural schemas of individuals (micro-level), shaping their perceived susceptibility, perceived severity, perceived threats, perceived barriers, perceived benefits, and self-efficacy (the HBM components), and thereby motivating their health-seeking behaviour as well as the continuity with care. Cues to action in the framework refer to internal or external factors such as pain or symptoms and information from relatives/family members, friends and health care workers or media campaigns that prompt the perceived threat to trigger decision-making processes vis-à-vis health-seeking behaviour and care continuity. On the other hand, these cues to action directly prompt individuals’ self efficacy (individuals’ perceived ability to take action successfully) and shape their decisions involving health-seeking behaviour and continuity of care. Similarly, these individuals, in turn, update the cultural meaning system through their lived experiences that accumulate over time.
2.5 Theories aiding interpretations

Several themes emerged through the data analysis and interpretation processes, specifically through inductive reasoning; these themes were not part of the theoretical framework that informed the data collection. Emergence of themes from the data via induction is one of the underlying principles of grounded theory that influences the analysis of qualitative data. Several theoretical concepts were adopted to move the analysis beyond the descriptive accounts and to better explain the emergent themes in the study. The self-care concept (see chapter five) was combined with the HBM components to help explain the individual actions – in terms of self-medication and self treatment – to understand their health-seeking behaviours. The 5A's of access to care dimensions (see chapter seven) were combined with the HBM components to help explain the context that shaped diabetes patients’ behaviour vis-à-vis medication use. The explanatory models of illness (see chapter eight) were combined...
with the concept of cultural schemas to show how illness experiences are embedded in one's social and cultural context; this aids the understanding of health-seeking practices. A reflection on the application of these theories and the information gained is provided in the concluding chapter (see section 9.3.1).

In conclusion, this chapter provided the theoretical underpinnings that framed the study, the data analysis and the interpretation process. A detailed description of the research site and the data collection and analysis methods are provided in the next chapter.

References


