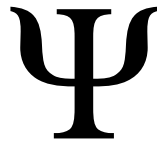**DET PSYKOLOGISKE FAKULTET**

Ψ

Common Mental Disorders in rural Tanzania:
How do patients explain their distress?

HOVEDOPPGAVE

profesjonsstudiet i psykologi

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Foreword

The authors have contributed equally to this paper. The work has included several steps, from preparatory steps in Norway in forming the semi structured questionnaire, to conducting the questionnaires and interviews at HLH in Tanzania, analyzing the data, and writing the final paper. The work put down in the process with the paper has been interesting and rewarding, and we feel privileged to have been part of the bigger project on Common Mental Disorders that Tine Nordgreen and Erling Svensen has initiated at Haydom. A good and constructive cooperation between the authors have made the work on the paper inspiring and pleasurable.

Abstract

The aim of the study was to investigate the explanatory models of Common Mental Disorders (CMD) in a primary health care setting in rural Tanzania. 28 patients who attended a primary health care out-patient clinic in rural Tanzania and reported CMD on a self-report questionnaire, were interviewed regarding explanatory models for their complaints. All patients reported high levels of distress related to CMD across three self-report questionnaires. However, when interviewed, patients did not report CMD as the reason for coming to the doctor or as an explanation for their problems. Somatic complaints were reported as the main reason for attending the health care clinic, and emphasized as the primary concern for the patients. The discrepancy between reported CMD distress on the self report questionnaires and information revealed in the qualitative interview may be explained by factors such as stigma of mental disorders, lack of knowledge about CMD and being in a medical setting while interviewed.

Keywords: Common Mental Disorders, Explanatory Model, Emic/Etic, Stigma, Physical Pain.

Sammendrag

Formålet med studien var å undersøke forklaringsmodeller for vanlige psykiske lidelser som angst og depresjon (CMD) hos pasienter ved en primærhelsetjeneste på landsbygden i Tanzania. 28 pasienter ved en primærhelsetjeneste på et somatisk sykehus som rapporterte CMD på selvrapporteringsskjema, ble intervjuet angående forklaringsmodeller for plagene sine. Alle pasientene rapporterte mye plager relatert til CMD på tvers av tre selvrapporteringsskjema. I intervjuet ble CMD ikke rapportert som årsak for å oppsøke medisinsk hjelp eller som forklaring for plagene deres. Somatiske plager ble rapportert som hovedårsaken for å oppsøke primærhelsetjenesten, og vektlagt som årsak til mest bekymring blant pasientene. Misforholdet mellom plager av CMD rapportert på selvrapporteringsskjemaet og plager uttrykt i det kvalitative intervjuet kan bli forklart av faktorer som stigma for mentale lidelser i utviklingsland, manglende kunnskap om CMD og det faktum at pasientene ble intervjuet i en medisinsk kontekst.

Introduction

Mental health disorders hold a significant part of the burden of disease in developing countries. The World Health Organization (WHO) has estimated that depression will become the second leading cause of disability worldwide by the year 2020 (World Health Organization, 2001). However, common mental disorders in developing countries, such as depression, is an area that has received little international attention. The overwhelming majority of mental health research comes from developed countries (Abas, Baingana, Broadhead, Iacoponi, & Vanderpyl, 2003). Gaining more information about the character and expression of mental illness across different cultural contexts is suggested as one way to increase our understanding of psychological disorders (Aidoo & Harpham, 2001). Therefore, more research on perceptions of mental health problems in the developing world is required (Bhagwanjee, Parekh, Paruk, Petersen, & Subedar, 1998).

Research that combines a quantitative approach with an explorative, qualitative approach is recommended in order to gain knowledge of mental disorders across cultures. One way of doing this is by combining questionnaires with well documented psychometric properties with qualitative, semi-structured interviews, an *etic* and an *emic* approach. This method combines existing accumulated knowledge of mental disorders with information about local expressions and variants of psychological distress (Patel, Gwanzura, Simunyu, Lloyd, & Mann, 1995). The present study seeks to gain knowledge about CMD in rural Tanzania following the recommendations from Patel (1995) and colleagues (Patel, et al., 1995). There have been few studies of mental health in this area, and research is required in order to understand the expression of CMD in this setting. The aim of the study was to gain an understanding of how patients with

burdens and problems characterized as CMD explain and understand their illness. This was the basis for the following research questions:

1) What are the characteristics of Common Mental Disorder among primary health care patients in rural Tanzania?

2) How do primary health care patients with CMD in rural Tanzania understand and explain their problems?

Conceptual Clarifications

Before the background for the study will be presented further, the concepts that are central in the article will be defined in the following:

Common mental disorders. The term Common Mental Disorder (CMD) was first coined by Goldberg and Huxley in 1992 (Goldberg & Huxley, 1992). It is a term describing the common mental disorders highly prevalent in the community, mainly disorders of anxiety and depression (Goldberg & Huxley, 1992). According to Goldberg and Huxley, clear distinctions between the disorders of anxiety and depression is not supported by clinical reality (Goldberg & Huxley, 1992). International research has shown that the co-morbidity of neurotic disorders such as anxiety and depression can exceed 50 % in community settings, and this makes any clear-cut separation between them difficult (Ustun & Sartorius, 1995). Also; diagnostic labels of anxiety, depression and phobias well anchored in Western cultures are not always easy to transfer into other cultures, which may have no equivalent term for this (Patel, 2001). The use of the term CMD, or the identification of local concepts describing similar illnesses, is recommended in the context of primary health care of the developing world (Patel, 2001).

Culture. The term "*culture*" is in present paper defined as "the shared way of life by a group of people" (Berry, Poortinga, Segall, & Dasen, 2002, p. 2) Culture is a term describing both the concrete activities, rituals and artifacts shared by a group of people, and the underlying symbols, values, meaning and beliefs (Berry, et al., 2002). Cultures can remain relatively stable across generations, but are at the same time dynamic and flexible and in constant change (Berry, et al., 2002; Kirmayer, 2001).

Cross-cultural psychology. In Berry, et al. (2002), cross-cultural psychology is defined as "the scientific study of variations in human behavior, taking into account the ways in which behavior is influenced by cultural context" (Berry, et al., 2002, p. 1). One of the main goals of cross-cultural psychology is to test the generality of psychological theories and assumptions in different cultures. Another central goal is to discover cultural variations of psychology, and to integrate this knowledge into a broadly based psychology, more applicable for all cultures (Berry, et al., 2002).

Etic and emic. The terms *etic* and *emic,* first coined by Pike (1967), are central concepts in the field of anthropology and cross-cultural psychology (Berry, et al., 2002). The *etic* approach emphasize that diagnostic criteria's can be utilized worldwide and that standardized instruments of measurements can be used to gain a comparative epidemiological overview (Patel, 2001). The *emic* approach emphasizes the cultural diversity in experience, expression, diagnosis and management of mental illness. According to this tradition, concepts of mental illness cannot be transferred from one culture to another (Patel, 2001). An implication of this is that locally derived instruments of measurements are preferred, as they may gain access to different and more valid information than the standardized instruments (Patel, 2001). Both

approaches have their strengths and limitations, and the "new" cross-cultural psychiatry has tried to integrate both perspectives (Patel, et al., 1995).

Explanatory model. Explanatory Model (EM) was defined by Kleinman (1980) as "the notions about an episode of sickness and its treatment that are employed by all those engaged in the clinical process" (Kleinman, 1980, p. 105). By investigating patients EMs one can learn about how they make sense of given episodes of illness, how they choose treatment and how they in the end, evaluate the particular treatment (Kleinman, 1980).

Common Mental Disorders in Developing Countries

Research gap. Three quarters of the world's population, an overwhelming majority, lives in the developing world. CMD is a significant and growing problem in developing countries. However, the world's research on mental health is unevenly distributed (Patel & Kim, 2007; Patel & Sumathipala, 2001; Saxena, Paraje, Sharan, Karam, & Sadana, 2006). Only 10% of what is spend on health research and development within healthcare worldwide, is devoted to the problems that primarily affect the poorest 90% of the world's population. This has been referred to as the 10/90 gap, and is also true for research done in the field of mental health (Paraje, Sadana, & Karam, 2005). In recent years, literature-reviews have shown that only 3.7-6% of accessible articles about mental health are from developing countries (Patel & Kim, 2007; Patel & Sumathipala, 2001; Saxena, et al., 2006). One reason for this publication bias in scientific magazines is that research from Western cultures are characterized as having more international relevance and significance than research done in developing countries (Patel & Sumathipala, 2001). Research done in developing countries are often

said to be illustrating the influence of culture on psychiatric disorders (Patel, 2001).

However, lack of monetary resources and few researchers in developing countries is

probably the most central factor in explaining this gap (Doku & Mallett, 2003).

      Cultural factors in common mental disorders. One major aim within the field

of international mental health is to find the prevalence of mental health disorders across

continental, national and cultural boundaries. In this regard it has been questioned

whether the mental disorders measured cross-culturally reflects the same illnesses.

Generally it has been found that the epidemiological patterns of mental illness are

comparable worldwide (Patel, 1995, 2007; Stein & Seedat, 2007). Developing countries

are found to have similar rates of neurotic disorders to that of developed countries (Das,

Do, Friedman, & McKenzie, 2009). However, the prevalence varies in different settings

with variables such as gender, income inequality and other factors associated with CMD

(Patel, 2001). Poverty is one of the factors associated with CMD, and is believed to be

related to mental illness in a complex way (Patel & Kleinman, 2003). Income levels

alone is only weakly related to CMD, but is mediated by factors such as insecurity,

feelings of hopelessness, poor physical health, rapid social change and limited

opportunities as a result of low education (Patel & Kleinman, 2003). It has been

proposed that CMD and poverty in developing countries interact in a negative cycle

where they exacerbate each other (Patel, Abas, Broadhead, Todd, & Reeler, 2001; Patel

& Kleinman, 2003). There is also cross-culturally a strong relation between disability

and mental disorders. This relation is independent of co-occurring medical illness,

which illustrates that CMD has an important negative effect on the patients' level of

functioning (Ormel et al., 1994).

How is common mental disorders expressed? Whereas prevalence of CMD seems comparable world-wide, expressions of mental disorders takes different forms across cultures (Patel & Sumathipala, 2006).What people in some cultures may describe as "a numbing feeling in the arm", may be described by people from other cultures as a feeling of "insects crawling under the skin" (Patel & Sumathipala, 2006). Some symptoms common in African cultures are more unknown to the western world. Examples are feelings of "heat in the head", "a trembling feeling in the tongue", "turning in the head" and "a sensation of the heart wanting to fly out" (Patel, 1995, 2001).

There is a strongly held assumption that people in the developing world "convert" their psychological distress into somatic complaints (Patel, 2001). However, somatic complaints are also the most common presenting feature of CMD in developed countries (Patel, 2001). Because the body has important symbolic value in African cultures, physical images are often used to describe feelings or mental states (Patel, 1995). Many somatic symptoms, especially those related to the heart and the head, are in some cultures metaphors for grief or fear, and can be expressions of depression and anxiety (Patel & Sumathipala, 2006). The cultural value of symptoms is assumed to affect the expression a disorder has in a culture. For instance are hallucinating and delusional symptoms a more prominent part of psychotic disorders in Western world compared to Africa (Patel, 1995). This could be because different meanings are attributed to such phenomena in the developing world versus the Western world (Patel, 1995).

Stigma of mental disorders. "People in African countries equate mental illness with behavioral disturbances associated with psychotic disorders" (Patel, 1996, p. 742).

For this reason, Common Mental Disorders in Africa is often not considered a "mental illness", but referred to as a social problem (Abas, et al., 2003; Patel, 1995, 2001). Several studies have noted the stigma associated with mental disorders in African countries (Hyman, Chisholm, Kessler, Patel, & Whiteford, 2006; Patel, 1996). One of the effects of this can be reluctance on behalf of medical personnel in using psychiatric diagnosis on their patients (Patel, 2001).

Common mental disorders in primary health care. The primary health services have become an important priority for improving mental health care worldwide, after recommendations by the WHO (Gureje & Alem, 2000). A large international study has shown that 24 % of patients in primary health care have a mental disorder (Ustun & Sartorius, 1995). These patients often pass health clinics without their mental health problems being recognized (Sartorius et al., 1990). Most patients with CMD present with somatic symptoms in primary health care (Patel & Sumathipala, 2006). Due to lack of training in professionals, and patients lack of knowledge about mental illness, these symptoms are often considered as isolated somatic symptoms or symptom of a physical disease (Aidoo & Harpham, 2001). The overall recognition rate of CMD in primary health care was in a multinational study found to be 42 percent (Goldberg, 1995). This number is believed to be considerably lower in developing countries, due to a combination of multiple reasons (Abas, et al., 2003). A main reason is the huge gap between developed and developing countries in resources available for health care. (Patel, 2007) Mental health receives only a fraction of the limited health care budgets of developing countries (Goldberg, Mubbashar, & Mubbashar, 2000; Patel, 2007). There is also a wide gap of human resources, reflected by the ratio of psychiatrists to population. In many countries in Africa there is one psychiatrist per 5

million people, while in the European countries it is 1 per 1000 people (Gureje & Alem, 2000). Lack of resources, lack of psychiatric personnel and available treatment, and stigma of mental disorders are contributing reasons for the much lower recognition rate (Patel, 2007).

Common mental disorders in Tanzania. In Tanzania, the prevalence of CMD in a primary health care setting has been found to be 24% (Ngoma, Prince, & Mann, 2003). This is comparable to the findings from 14 studies in Sub-Saharan African countries (Stock, 1995). The prevalence of CMD among those attending a traditional healer centre in Dar-es Salaam, were found to be 48%, twice the rate of primary health care (Ngoma, et al., 2003). Traditionally, healers have played an important role in helping people with spiritual, mental, social and physical problems (Kilonzo & Simmons, 1998). A survey conducted in eight localizations across Tanzania, both rural and urban, looked at the attitudes towards mental health, in the general population (Whyte, 1991). Culturally adjusted vignettes for six neuro-psychiatric conditions were presented to the participants (Whyte, 1991). When hearing descriptions of depressive symptoms more than half said they had never heard of this condition (Whyte, 1991). The two most commonly held explanations for depression involved either supernatural agencies or psychosocial problems (Whyte, 1991). It was clearly expressed that many worries ("mawazo mengi" – "many thoughts") directly causes depression (Whyte, 1991). In the same area as present study was conducted, Mbulu district, Pike and Patil (2006) identified some of the psychosocial stressors among women (Pike & Patil, 2006). It was found that hunger, lack of cattles, and their own or their family's health problems, were among the most important burdens carried by the women that were causing psychological distress (Pike & Patil, 2006). Carrying the responsibility for the

food distribution in the family is a pressing concern for the women of this area. Fear of

domestic violence was also reported, but was by the authors believed to be

underreported in the sample (Pike & Patil, 2006).

Assessing Common Mental Disorders Across Cultures

One major challenge when measuring CMD in developing countries is the fact

that most questionnaires and diagnostic interviews are developed and standardized in

developed countries. With reference to the dichotomy of *emic* and *etic* perspectives, the

use of only Western developed instruments may not yield the true prevalence of CMD

in the community. Therefore validation is recommended in every culture. Examples of

research on CMD using both approaches are described in the following:

The Self Report Questionnaire (SRQ-20). This questionnaire have been

suggested as one way to assess prevalence of CMD in developing countries (Araya,

Wynn, & Lewis, 1992; Beusenberg & Orley, 1994). The SRQ-20 is a valid, low-cost

WHO developed instrument for measuring CMD, both in terms of time and level of

human resource required (Harpham et al., 2003). Eight studies carried out by

Reichenheim (1991) in Rio de Janeiro, Jaswal (1995) in Bombay, Ludermir (2001) in

Olinda, Aidoo (1998) in Lusaka, Hamid (2001) in Lahore, Thomas (2003) in Durban,

Thomas (2003) in Lusaka and Harpham (2003) in Cali, were all done among low-

income urban populations in developing countries. The studies showed a prevalence of

poor mental health ranging from 18% to 42% when using SRQ-20 (Harpham, et al.,

2003). Another study done in a rural community in South Africa, used SRQ-20 as a

first-stage screening, and thereafter a clinical interview based on DSM-IV were

administered (Bhagwanjee, et al., 1998). The result showed that SRQ-20 was a valid

and cost effective screen for CMD (Bhagwanjee, et al., 1998).

Hopkins Symptom Checklist-25 (HSCL-25). Translated versions of the widely

used HSCL-25 (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) has also been

used in Africa, and have been described as efficient and brief (Winokur, Winokur,

Rickels, & Cox, 1984). In one study, a version of the HSCL-25 was used in

investigating the prevalence of depression in rural Uganda (Bolton, Wilk, & Ndogoni,

2004). High rates of depression, consistent with rates from other parts of the

developing world, were found in this study (Bolton, et al., 2004). Symptoms of

depression were associated with difficulties in tasks related to taking care of oneself, the

family and participating in the community (Bolton, et al., 2004). HSCL-25 has also

been validated in a Tanzanian setting revealing good internal consistency, and

reliability (Lee, Kaaya, Mbwambo, Smith-Fawzi, & Leshabari, 2008). A high

correlation between anxiety and depression in the sample showed that there may not be

a clear-cut distinction between the two in this area (Lee, et al., 2008). Two studies

conducted in rural Tanzania used HSCL-25 to investigate changes in anxiety and

depression associated with food insecurity (Hadley & Patil, 2006, 2008). Results

showed that symptoms of anxiety and depression correlated with their food security

situation (Hadley & Patil, 2006, 2008).

Dar-Es Salaam Questionnaire (DSQ). As a result of an attempt to combine an

etic and *emic* approach, local variants of screening instruments have been developed,

based on well documented questionnaires with good psychometric qualities. DSQ is one

such instrument, based on HSCL-25 (Kaaya, Lee, Mbwambo, Smith-Fawsi, &

Leshabari, 2008). DSQ was used in a study of antenatal clinic attendees in Dar Es

Salaam, Tanzania (Kaaya, et al., 2008). DSQ proved to be more sensitive than HSCL-25 in discriminating between patients with high and low scores below cut-off.

Explanatory Model (EM) for Illness

Explanatory Models (EM) refer to patients perceptions about own illness. By investigating patients EM one can learn about how they make sense of given episodes of illness, how they choose treatment and how they in the end, evaluate the particular treatment (Kleinman, 1980). The understanding of patients EM of Common Mental Disorders is suggested as central in order to understand how illness is perceived within a culture and its context (Patel, et al., 1995). By focusing on a patient's EMs of CMD, locally valid concepts of CMD can be detected and utilized. Examples from Sub-Saharan Africa are "thinking too much", or hot/cold phenomena such as "burning in the feet". These phenomena are related to concepts of depression and anxiety (Patel, et al., 1995).

While disease is the malfunctioning of psychological or biological processes, EM refer to the psychological experience of disease, capturing the meaning and explanations attributed to this by the patients (Kleinman, 1980). Many explanations people give of their illness don't follow a coherent and logical model like the biological disease model, and explanations do not always determine their responses to the illness (Salloum & Mezzich, 2009). Fragments of information are borrow from multiple sources, often contradictory and conflicting, making the EM dynamic and flexible (Salloum & Mezzich, 2009). Thoughts about illness influences where and what kind of treatment the patient seeks, and may affect the expectations and perceptions of the treatment process (Patel, 1995; Weiss, 1997). Knowledge about patients EM can also help to give a more accurate picture of the patient's illness burden, and can be an

important addition to traditional quantitative indicators of illness such as mortality, morbidity, economic impact and disability. (Chen, Kleinman & Ware, 1994 i Weiss, 1997).

Research on explanatory model. The scientific study of EM provides an insight to how illnesses like CMD are perceived and expressed in different cultures (Lloyd et al., 1998). Patel (1995) has reviewed studies conducted on explanatory models of mental illness in 11 countries in Sub Saharan Africa. Despite rich diversity, many concepts are shared. Most African cultures differentiates between mind and body, and separates illnesses "of the mind" from somatic diseases. In some instances, "illness of the soul" or "of the spirit" can be compared to mental disorders (Patel, 1995). Spirits have an important role in the African world view. The continuation of life after death is a part of their beliefs, and this also plays a role in their EM for illness (Patel, 1995). Illness is described as either a normal or "abnormal" illness. Supernatural forces, other human beings or the behavior of a person or his family can be causes of abnormal illnesses (Patel, 1995). Abnormal illnesses are treated by the traditional healer and the normal illness can be equally well treated by the primary health services and the healer (Patel, 1995).

A study of EM were conducted in Lusaka, Zambia, comparing the EM held by professional medical personnel to those held by a group of urban low income women with CMD (Aidoo & Harpham, 2001). The EM of the women and the professionals were comparable, but the professionals had a different understanding of how social circumstances can lead to emotional distress, which again may lead to physical symptoms. The women did not make the same links between causes and effects. For the patients, mental illness was associated with "madness", and this prevented them from

contacting psychiatric services (Aidoo & Harpham, 2001). Both groups stressed the

women's socioeconomic situation as an important factor of their mental health

problems; expectations in their role as women, unhappy marriages sometimes marked

by violence and lack of opportunities due to poverty (Aidoo & Harpham, 2001).

Research Questions

Taken together, mental health problems in developing countries are

understudied, and research is suggested as one way to increase knowledge and

awareness about the burden of disease caused by mental health problems in these

countries. Both an *emic* and *etic* approach is recommended in order to gain new

knowledge about mental health problems based on existing knowledge. The present

study addressed following research questions:

1) What do patients in a primary health care setting in rural Tanzania report of CMD on

self report questionnaires?

2) What do patients in a primary health care setting in rural Tanzania report of CMD in

a semi-structured interview?

Method

Setting

Present study was carried out at Haydom Lutheran Hospital (HLH), in the Mbulu

District, in the north-west of Tanzania. Tanzania has a population of 34, 4 million

people, with 34 % living in urban areas and 66 % in rural areas. Poverty is widespread

in Tanzania, and 36% of the population has less than US $1 to spend per day (Olsen,

2009). HLH lies 300 km from the nearest city Arusha. The hospital serves seven districts in four regions, and has an immediate catchment area of more than 300,000 people. It has an even greater reference area of more than 2.1 million people (Olsen, 2009). The population in the catchment area of the hospital is ethnically diverse, with the majority being farmers and/or pastoralists. The patient population consists of several tribes, with Iraqw, Datoga, Iramba and Inzanzu as the most common. Each has their own language, but since Swahili is the teaching language in school, most adults speaks Swahili in addition to their mother tongue. Most households are poor, having no electricity, sanitary facilities, or clean water attached to their houses. HLH has 400 beds, and had 12500 patients admitted in 2008, with Malaria and Tuberculosis as the most frequent diagnoses (Olsen, 2009). No diagnosis of common mental disorder was given to any of the 60 508 patients attending the Out Patient Clinic in 2008 (Olsen, 2009).

Ethics

The project was presented for and approved by the National Institute of Medical Research in Tanzania, and the Regional Committees for Medical and Health Research Ethics (REK) in Western Norway.

Procedure

The study was part of a validation study of screening instruments for Common Mental Disorders at HLH (Svensen & Nordgreen, 2010). The study population in present study was primary health-care attenders between 18- 80 years seeking medical care at Out Patient Department (OPD) at HLH. People with acute somatic needs were excluded from the sample, as well as people not appearing able to participate in a long interview. The patients were initially recruited based on the OPD-number in order to

achieve random sampling. However, due to practical circumstances, a random sampling was difficult to ascertain; there was no organized queue-system, and only patients waiting at OPD could be approached. Patients were therefore selected by criteria of convenience while waiting for consultation.

The patients were informed about the research both orally and in writing, and asked to sign a consent form in order to participate. The interviews were conducted within enclosed rooms at the OPD by two multilingual translators (Swahili, English and Iraqw). Both the interpreters were employed by the hospital, one female and one male, both from the Iraqw tribe. The interviewers were trained and closely supervised by the researchers. Questions and possible responses of the SRQ-20, HSCL-25 and DSQ were read out loud and the patient answered according to what felt most describing to him/her. Patients with a SRQ-20 score above cut-off 9/10 (n=28), indicating the presence of CMD, were asked to further participate in the semi-structured interview; Explanatory Model Interview (EMI), with questions regarding their experience of their complaints.

All patients agreed to participate. The interpreters read the open-ended questions out loud in Swahili*, and the replies were translated for the researcher, making follow-up questions possible. If something was unclear, the replies were discussed between the interpreter and the researcher after the patient had left the room. After completing the questionnaires and the EMI, the interpreters were interviewed.

**If the patient was not fluent in Swahili, the interpreters attempted to interview in the patients mother tongue.*

During the interview process, it became clear that the interpreters had knowledge about the theme from the interviews, which seemed valuable to include in the study. The two multilingual interpreters were therefore also informants in present study, interviewed about explanatory models of mental health problems in the community.

Materials

The questionnaires in present study comprised of questions regarding demographics and social-economic situation, general health and three different self-report questionnaires related to CMD.

Demographics and socio-economic situation. These questions included ethnic affiliation, religion, school progress, marital status, writing and reading skills.

General health. The patients were asked to do a self-rating of their health. This was defined by responses to one single question; "In general, would you say that your health is; "excellent", "very good", "good", "fair" or "poor" ?" (Mossey & Shapiro, 1982). Questions like this are among the most frequently used to assess health perceptions in epidemiological research (Mossey & Shapiro, 1982).

Self Report Questionnaire (SRQ-20) (Harding et al., 1980). The questionnaire entailes 20 questions measuring mental health status (Beusenberg & Orley, 1994). It is meant to be simple to administer for healthcare workers with little training in mental health (Beusenberg & Orley, 1994). SRQ-20 is not considered a diagnostic tool, and can only estimate the probable presence of a mental disorder (Beusenberg & Orley, 1994). It has been translated into many languages and validated in many different cultural settings (Maziak, Asfarb, Mzayekc, Fouadd, & Kilzieh, 2001). The respondents answer yes =1 or no = 0, indicating presence or absence of neurotic symptoms within the last

month (see Appendix 1). Maximum sum score is 20 (Beusenberg & Orley, 1994). The

cut-off for caseness has been established at 7/8, but varies in different cultural settings,

and needs to be established individually in each culture. Based on a validation study in

this cultural context, a cut off at 9/10 was found appropriate for this study. The internal

consistency of SRQ has been found to be satisfactory, with a coefficient of 0.81

(Maziak, et al., 2001). Cronbachs alpha for SRQ in this setting was 0.87.

Hopkins Symptom Checklist-25 (HSCL-25) (Hesbacher, Rickels, Morris,

Newman, & Rosenfeld, 1980). The 25 item questionnaire is a shorter version of

Hopkins Symptom Checklist-58 (HSCL-58) (Derogatis, et al., 1974), The questionnaire

consist of statements about the presence and intensity of symptoms of anxiety and

depression the previous week (Winokur, et al., 1984). The patient are asked to choose

between the responses " not bothered = 1", "a little = 2", "some"= 3, "extremely

bothered = 4" or "don't know = 0" (Derogatis, et al., 1974) (see Appendix 2). A cut-off

point for caseness is conventionally defined at mean score of 1.75 for North American

subjects (Winokur, et al., 1984). A cut off for caseness in a Tanzanian setting has been

found at 1.06 (Kaaya et al., 2002).Validation of the HSCL-25 in a Tanzanian setting

has revealed good internal consistency, inter-rater reliability and test-retest reliability

(Kaaya, et al., 2008).

Dar-es-Salaam Questionnaire (DSQ) (Kaaya, et al., 2008). This questionnaire

entails 19 statements measuring depression (Kaaya, et al., 2008). In this study, 12 of the

items were used. DSQ was developed in an attempt to create a local instrument for

detecting depression, using indigenous expressions from Tanzania (Kaaya, et al., 2008).

Based on items from Hopkins Symptoms Checklist -25 (HSCL-25) and local idioms for

depressive and anxiety symptoms from ethnographic interviews, the idioms with best

sensitivity for detecting depression within this cultural context were identified. The

patient are asked to choose between the responses "not bothered" = 1, "a little" = 2,

"some" = 3, "extremely bothered" = 4, or "do not know" = 0 (see Appendix 3). Based

on Kaaya et al. (2008)'s study in Tanzania, a cut-off for mean score at 1.40 was used in

this study (Kaaya, et al., 2008). Depressed affect, decreased appetite and concentration

disturbances were not included in the DSQ, but of the idioms that are not found in

Western instruments are "screaming without awareness of doing so" and "turning inside

head". DSQ has been found to have slightly higher sensitivity to detect depression than

HSCL-25 in a sample from Dar-es Salaam (Kaaya, et al., 2008). It has a cronbachs

alpha (0.84), interrater reliability (intraclass r = 0.89), and test-retest reliability

(intraclass r = 0.82) (Kaaya, et al., 2008).

       Explanatory model interview (EMI). Kleinman's (1980) five concepts;

etiology, time and onset of symptoms, pathophysiology, course of sickness and

treatment, were the basis when Lloyd et al. formed their semi-structured interview-

guide (Lloyd, et al., 1998). Lloyd et al.'s semi-structured interview-guide was used as

guidelines in present study. The interview has simple language without any medical or

technical words, and the questions are open-ended. The semi-structured interview gives

the researcher flexibility to follow the subject into the areas that seem important, and to

develop his instrument as the research progress (Smith & Osborn, 2008). The first six

questions used in this study are taken directly from Lloyd et al., the five last questions

are from Kleinman (see Box 1). In addition some prepared probing questions were

taken from Lloyd et.al. One of the probing questions was made as a result of comments

from the two multilingual translators, who explained that it was common in the

community of Haydom to use spiritual explanations for illness. It was useful to include

a question about this in some cases (see Box 1, question 16). Another of the probing question was made after starting with the interviewing. Related to question 4, many patients had problem giving an answer or didn't understand the question. The probing question was asked to get the patients to answer with more depth (see Box 1, question 17). In addition to the interview and the prepared probing questions, some patients were asked ongoing probing questions related to their answers.

Box 1. Questions used in present study.

Box1. Explanatory Model Interview.
1. What have you come to see the doctor about? List up three reasons.
2. What do you call these problems? If you have to give it name, what would they be?
3. How long ago did you first notice these problems?
4. Why do you think these problems started when they did?
5. What is the cause of you getting this problem?
6. What do you fear most about your problems?
7. What does your sickness do to you? How does it work?
8. How severe is it? Will it have a short or a long course?
9. What are the chief problems your problem has caused for you?
10. What kind of treatment do you think you should receive?
11. What are the most important results you hope to receive from the treatment?
Prepared probing questions.
12. Have you been emotionally affected by what you describe?
13. Have these problems affected your social life?
14. Have these problems affected your work?
15. Have these problems affected your home life?
16. Many people explain their complaints/sickness in terms of witchcraft, spells or other spiritual forces, is this something you are familiar with and use as an explanation for your problems?
17. Did something specific happen in your life at this time?

Analyses

Quantitative data were entered and analyzed with SSPS 15.

Qualitative data were analyzed according to principles from Interpretative Phenomenological Analysis (IPA) (Smith & Osborn, 2008). IPA is a phenomenological approach where the aim is to understand and convey how the individual makes sense of his or her personal and social world. It seeks to explore the person`s perception and understanding of his/her experiences, as opposed to seeking an objective statement about an event (Smith & Osborn, 2008). The researcher plays an active part in this process. It is a goal to get close to the "insider" perspective of the participant, but the version accessed will be interpreted and explained in terms of the researchers own conceptions. It is a two stage process; the researcher tries to make sense of how the participants make sense of their world (Smith & Osborn, 2008). The aim is to produce more detailed descriptions of a small group, rather than to prematurely make generalizations for larger parts of the population (Smith & Osborn, 2008).

When analyzing data in present study, the first stage in the process was to transfer responses to each question into a table containing all the information given by each person horizontally and all of the responses for each question vertically. Answers to a question asked as probing or follow-up, were taped as an answer to the original question because there were no qualitative difference in the answers. When a patient's answer was related to another question then the one being asked, the response was moved to the question that fitted their answer. In some instances the answer the patient gave didn't fit either the question asked or any other question. These answers were categorized as undefined answers. The two authors did this independently, in an attempt to avoid biasing in the analysis.

The second stage in the process was focused on the answers given by each patient independently. The researchers tried to find the Explanatory Models for each patients based on the answers they had given. At first, the two researchers looked at each and every patient independently. Thereafter they came together and discussed their findings. It became clear that the patients' explanatory models, based on their answer, could be explained by five categories. The identified categories were; "no explanation", " psychosocial explanation", "physical/subjective complaints as explanation", "explanations of physical illness as reason for emotional problems" and "spiritual explanation".

The third stage was to analyze some reminding questions that did not naturally fit the explanatory model for each patient. Now the researchers did not look at each patient, but rather at the questions. Answers to the questions were classified, and categories were made. This process was done in the same manner as the previous stages. In a few incidents the answers were categorized differently between the two researchers. The categorizations were then discussed until agreement was obtained. There were also some differences in the categories that had been made. Usually this was either variations of the same theme or variations in how broad or narrow the categories had been made. In general there was reasonably good agreement of the categories and where to place the different answers.

Results

Demographics

28 patients attending a primary care unit at Haydom Lutheran Hospital was recruited into the study; 19 women (67.9%) and 9 men (32.2%). Participants' age ranged from 19 to 76 years old, with an average of 40.2 years. They had from 0 to 9 children, with an average of 3.9 children. 14 patients (50.0%) were of Iraqw tribe, a tribe traditionally living of agriculture and pastoralism. Eight patients (28.6%) were from the Iramba tribe and two (7.1 %) of Izansu, both agricultural groups. Two (7.1%) were from the Datoga tribe, a nomadic pastoralist group, and one (3.6%) of "other". One had not answered the question (3.6%). In Table 1, the participants' religion, marital status, school progress and writing and reading skills and are submitted.

Table 1. Religion, marital status, school progress, and writing and reading skills.

Demographics	N	%
Religion		
Catholic	8	28.6
Lutheran	7	25.0
Muslim	4	14.3
Traditionalist	1	3.6
Other religions	6	21.4
Missing data	1	3.6
Marital status		
Living as married	20	71.4
Living a lone	8	28.6
School progression		
Primary school	15	53.6
Secondary school	3	10.7
Writing and reading skills		
Both read and write	14	50.0
Cannot read and cannot write	13	46.4
Can read but not write	1	3.6

COMMON MENTAL DISORDERS IN TANZANIA

General Health

All the patients were asked to range their general health between the response options; "excellent", "very good", "good", "fair" or "poor". None of the 28 patients in the study answered "excellent" or "very good". Twelve of the patients (42.9%) answered "good", five (17.9%) answered "fair" and eleven of the patients (39.3%) answered "poor.

Self-Report Questionnaire-20 (SRQ-20)

Patients sum scores at SRQ-20 ranged from 10-18, with mean 13.42 and standard deviation 2.77. For males the mean was 12.63 (SD = 2.55) and for females the mean was 13.79 (SD = 2.86). In general a high level of suffering was reported on a wide range of symptoms enquired. The problems most frequently reported, by over 90 %, were not being able to perform their daily work well, feeling tired and easily getting tired. Feeling unhappy and getting easily frightened, two central characteristics of depression and anxiety, were reported by 75.0 % of the sample, while uncomfortable feelings in their stomach was reported by 82.1%. Only three items were confirmed by less than 50%; "Do you feel that you are a worthless person?" were confirmed by 42. 9 %, "Do you cry more than usual?" were confirmed by 32.1 %, and "Have the thought of ending your life been on your mind?" were confirmed by 17.9 %. All the results are present in Table 2.

COMMON MENTAL DISORDERS IN TANZANIA

Table 2. Result from SRQ-20

Scale Items	yes	%
13. Is your daily work suffering?	27	96.4
20. Are you easily tired?	26	92.9
18. Do you feel tired all the time?	26	92.9
19. Do you have uncomfortable feelings in your stomach?	23	82.1
4. Are you easily frightened?	21	75.0
9. Do you feel unhappy?	21	75.0
11. Do you find it difficult to enjoy your daily activities?	20	71.4
14. Are you unable to play useful part in life?	20	71.4
15. Have you lost interest in things?	20	71.4
5. Do you hands shake?	19	67.9
3. Do you sleep badly?	19	67.9
7. Is your digestion poor?	19	67.9
2. Is your appetite poor?	19	67.9
12. Do you find it difficult to make decisions?	19	67.9
6. Do you feel nervous, tense or worried?	18	64.3
8. Do you have trouble thinking clearly?	17	60.7
1. Do you often have headaches?	15	53.6
16. Do you feel that you are a worthless person?	12	42.9
10. Do you cry more than usual?	9	32.1
17. Has the thoughts of ending your life been on your mind?	5	17.9

Hopkins Symptoms Checklist -25 (HSCL-25)

HSCL-25 was completed by 24 patients. When calculating the patient's mean scores, it ranged from 1.28 to 3.80, with mean 2.73 (SD 0.66). This shows that all the patients came over the symptomatic cut-off 1.06. The question "feeling everything is an effort" were confirmed by all the patients. "Heart pounding or racing", "Feeling low in energy, slowed down" and "Feeling blue" were all confirmed by 95.8%. With only one two exception; "Crying easily" and "Thoughts of ending one's life", all the questions were confirmed by 50% or more. All the results are present in Table 3.

Table 3. Hopkins Symptom Check List-25 results.

Scale Item	Frequency Eendorsed*	(%)	M/SD
24. Feeling everything is an effort	24	(100.0)	3.17/0.761
5. Heart pounding or racing	23	(95.8)	3.54/0.884
11. Feeling low in energy, slowed down	23	(95.8)	3.13/0.900
18. Feeling blue	23	(95.8)	3.04/0.638
22. Worrying too much about things	22	(91.7)	3.38/0.970
4. Nervous or shakiness inside	21	(87.5)	2.75/1.032
9. Spells of terror or panic	21	(87.5)	2.92/1.018
3. Feeling fearful, faintness, dizziness or weakness	20	(83.3)	3.17/1.090
19. Feeling lonely	19	(79.2)	2.54/1.021
1. Being suddenly scared for no apparent reason	18	(75.0)	2.71/1.197
6. Trembling	18	(75.0)	2.83/1.239
10. Feeling restless, not being able to sit still	18	(75.0)	2.88/1.191
21. Feeling trapped or caught	18	(75.0)	2.63/1.135
2. Feeling fearful	17	(70.8)	2.54/1.215
8. Headaches	17	(70.8)	2.46/1.215
16. Difficulty falling asleep or staying asleep	17	(70.8)	2.74/1.322
15. Poor appetite	17	(70.8)	2.70/1.259
12. Blaming oneself for thing	16	(66.7)	2.67/1.308
7. Feeling tense or keyed up	16	(66.7)	2.67/1.341
23. Feeling no interest in things	16	(66.7)	2.77/1.270
14. Loss of sexual interest or pleasure	14	(58.3)	2.90/1.411
25. Feelings of worthlessness	13	(54.2)	2.13/1.191
17. Feeling hopeless about the future	12	(50.0)	2.04/1.186
13. Crying easily	10	(41.7)	2.14/1.320
20. Thoughts of ending one's life	10	(41.7)	1.88/1.154

*Coded as an endorsement if patients cited any level of severity (2, 3, or 4 on Likert scale).

Dar-es Salaam Symptom Questionnaire

DSQ questionnaire was completed by 24 patients. When calculating the patient's mean scores, it ranged from 1.17 to 3.67. Mean for the 24 patients were 2.66 (SD 0.81). 21 patients scored above the symptomatic cut-off at 1.40. "Heart racing", "Feeling tired" and "Inability to mix and talk with people" were the most frequently reported

problems. The symptom least frequently reported was "Vomiting" and "Excess sleep",

confirmed by 20.8%. This questionnaire captures some culturally defined ways of

expressing symptoms. The idiom "Turning inside head" were confirmed by 75.0% of

the sample, and "Screaming without an awareness of doing so" were confirmed by

37.5%. All the results are present in Table 4.

Table 4. Dar- Es Salaam Questionnaire results.

Sacle Items	Frequency endorsed*	(%)	M/SD
3. Heart racing	23	(95.83)	3.67/0.816
2. Feeling tired	21	(87.50)	3.38/1.096
12. Inability to mix and talk with people	21	(87.50)	3.42/1.018
4. Stomach-ache	18	(75.00)	2.75/1.294
11. Turning inside the head	18	(75.00)	3.13/1.296
5. Aches in the whole body	17	(70.83)	2.75/1.327
10. Ill-ease/fever	17	(70.83)	2.79/1.318
1.Headache	16	(66.67)	2.63/1.345
9. Irritability	15	(62.50)	2.63/1.408
6. Screaming without awareness of doing so	9	(37.50)	1.74/1.054
7. Vomiting	5	(20.83)	1.54/1.141
8. Excess sleep	5	(20.83)	1.63/1.245

*Coded as an endorsement if patients cited any level of severity (2, 3, or 4 on Likert scale).

Explanatory Model Interview (EMI)

  Etiology and course of sickness. Analysis of the EMI led to the identification

of five different categories of explanatory models, describing how patients perceived the

causes and the nature of their sickness. This refers to Kleinman's concept of etiology

and course of sickness (Kleinman, 1980). The groups of explanatory models are

described further below.

  No explanation. Five women and three men were categorized as having "no

explanation" to their sickness (see Table 5). This was the biggest group of patients

related to explanatory models. Common for these patients were that they did not give any reason for why they had become sick, or a cause of their problems. They had neither a physical nor a mental explanation for being sick. They confirmed having symptoms such as physical pain, and having loss of function in daily activities due to their problems. In general they answered the questions with few words, and didn't elaborate their answers when asked probing questions.

Psychosocial explanations. Seven patients, all women, gave psychosocial explanations for their distress (see Table 5). They all mentioned social circumstances that might have had an impact on their health. All but one mentioned problems related to their marriage. Other sources of strain were also mentioned, like the death of relatives, hunger and problems in other relationships. They gave descriptions of symptoms and feelings of depression or anxiety, and expressed being bothered by much physical pain and loss of function in daily activities. They had many worries related to their families and the future. They expressed fears regarding their social circumstances, for instance worrying that the husband would hurt them badly and worrying about not being able to take care of their children.

Physical/ subjective complaints. Four women and one man gave physical/subjective complaints as explanations for their distress (see Table 5). They did not report any emotional problems, and when asked directly about emotional changes or being sad etc., this was dismissed by all these patients. Some mentioned traumas or significant incidents related in time with onset of their other problems, but did not explain this as a reason for the problems. They had had their problems for a long time, and expressed many worries and much pain. They also confirmed loss of function in daily activities.

Physical illness as reason for emotional problems. Four women and one man gave physical illness as reason for their emotional distress (see Table 5). The patients in this group expressed feeling depressed or sad, and related this to their physical illness. When asked what the cause of their problem was, they gave explanations referring to internal bodily functions. They complained of much pain and of feeling weak, and of thinking and worrying about their physical health. Many expressed fear of pain and worried that something inside them would get "damaged", and appeared to have little knowledge about the body from a medical point of view.

Spiritual explanations. One man and two women gave a spiritual explanation for their distress (see Table 5). They explained their problems referring to spiritual, religious or supernatural forces. Their descriptions of how they thought they had become sick involved spirits inflicting them with illness through other people. Two of the patients explained jealousy as the motivation when someone had given them "something to drink". The third patient feared evil spirits might harm her unborn baby, but did not give any explanation to why this might be happening to her. The patients complained of pain, tiredness, and changed emotions, such as feeling more afraid and confused around people. They also complained of lowered function in daily life.

Table 5.Results related to etiology and course of sickness.

Categories	n	%	Quotes
No explanation	8	28.6	"I don't understand why I get this. It just started". "Feeling pain is the biggest problem. And I'm not able to eat. Have these problem affected your daily work? Yes, it affects my work. Have these problems affected your personal life? No".
Psychosocial explanation	7	25.0	"I'm thinking a lot because my mother in law is bothering me. That's why I'm depressed. When I tell my husband he will come beat me." "What does your sickness do to you, how does it work? I don't know how to help my kids, how to clean my children's clothes. It's hard to do my work. I have a lot of worrying about my children and life."
Physical/subjective complaints as explanation	5	17.9	"My problem started maybe because of high fever. Did something special happen in your life at this time? My father and firstborn child died. They were both sick and died within a year. Than my problem started. What is the cause of you getting this problem? Maybe the problem of aging, maybe the lack of nutrition in food? I'm thinking, do I have HIV or Typhus?" "I'm suffering from pain. I have severe pain, especially when I'm coughing."
Explanation of physical illness as reason for emotional problems	5	17.9	"(…)I feel like all of my body is aching. I can do my work, but later I feel so much pain. I'm feeling sad and depressed because of this." "Maybe in my chest there is something that cause my neck to hurt." "I'm always tired, all of my body is tired, and I'm not doing my things. Other days I'm thinking a lot about; why is this happening to me?"
Spiritual explanation	3	10.7	"I was given something to drink, I don't know by whom. It must have been a close relative. They didn't like that I went to secondary school. I think this is the cause of me getting my problems." "I'm most afraid that I will lose my baby. Because of the evil spirit."

Pathophysiology, time and treatment of sickness. Kleinmans concept of pathophysiology is reflected in the patient's descriptions of their physical symptoms. Pathophysiology is changes of normal physical or biochemical functions. The perceived changes may be caused by a disease or as a result from an abnormal syndrome (Kleinman, 1980). The patients were asked to report three reasons why they have come to see the doctor. All of the patients gave a reason for coming to the hospital, and the majority gave more than one reason. 75.0 % of the patients (21 patients), listed complaints that elsewhere are termed "subjective health complaints" (Eriksen, Ihlebaek, & Ursin, 1999) as the reason for coming to the hospital. Subjective health complaints are complaints with no objective signs or symptoms that may or may not have a physical explanation (Eriksen, et al., 1999; Wilhelmsen et al., 2007). Seven patients (25.0 %) listed other reasons for coming to the doctor, and with the exception of one, these patients also listed one or more subjective health complaint (see Appendix 4). The patients were also asked what they call their problems, illustrated in Table 6.

Table 6. Naming of the patients problems

Categories	N	%	Example
Physical symptoms/medical disorders	11	39.3	*"It can be Malaria, Typhoid or Tubercholosis".*
Uses the word sickness "ugonjwa"	6	21.4	*"Maybe we can call it sickness (ugonjwa)".*
Do not know/do not understand the question	6	21.4	*"I don't know, I will maybe know after the blood samples and tests".*
General body pain	3	10.7	*"Feeling pain all over my body".*
Spiritual explanation "kahamaro"	1	3.6	*"Given something. Evil Spirit (kahamaro)".*
Missing data	1	3.6	

When asked about the duration of their symptoms, 57.1% of the patients said

they had had the problems for over a year (see Appendix 5, Table A). According to

Kleinman, this reflects the concept of time and mode of onset of symptoms (Kleinman,

1980).

The patients were also asked about their perceptions about treatment, also one of

Kleinmans five concepts of EM. These results are presented in Table 7.

Table 7. What kind of treatment do you think you should receive?

Categories	N	%	Quotes
I do not know/ it depends upon the doctor's decision	13	46.4	*"I don't know, I will wait for the doctor's answer."*
To get medicine	6	21.4	*"I want medicine or pills for TB."*
Further examinations	5	17.9	*"I want my body to be checked by x-ray."*
Other kinds of treatments	3	10.7	*"Treatment for the heart, and a different treatment for my other problems."*
Admission to the hospital	1	3.6	*"I want to be admitted so they can check on me all the time."*

When asked what results they hope to receive from the treatment, the majority of

the patients (64.3%) said they hoped to recover or get well. Some patients (28.0%) said

they wanted to get better, while only one patient was classified as unsure about the

outcome, she stated "*Maybe I'll get better or maybe I'll die*". One patient had not

answered this question (see Appendix 5, Table B).

Impressions from the interview. All the patients conducted the EMI interview.

Generally few words were used by the patients to describe their illness and their beliefs

surrounding it. Although there were exceptions, the average patient did not present any

clear theories about the origin of their illness. The theories they presented were not

always consistently adhered to. Sometimes several different explanations were presented during the same interview. For instance one patient described how she was bothered by pain in her stomach, and that it got worse when her husband "bothered" her. She explained how life was difficult for her because of the situation at home, and presented this as the reason for her stomachache. But on question as to what was the cause of her problems, she answered that the stomachache was caused by hunger. Another patient responded to the question "What is the cause of your problem?" that she fell down and hit her head when she was in the farm plowing. On the probing question about witchcraft, she answered that she believes witchcraft was the reason for her complaints. By some patients the questions were not understood despite the fact that they were repeated several times and attempted explained in other words. Expressions that were used by several patients when describing the illness were *"My heart rate goes fast and high"*, *"My heart pumps faster than normal"* or *"I lose my mind and my heart rate goes fast"*. Four patients use the word "depressed" to describe their state. The pain and the suffering they experienced were emphasized strongly, and as a group they presented with a very high illness pressure.

Interview with the Interpreters.

The interpreters, as members of the local culture, had good knowledge of the cultural beliefs and the social setting the patients referred to. The interpreters pointed out that spiritualism and beliefs in witchcraft is common in the community. According to them, physical and mental problems are often believed to be caused by supernatural forces, evil spirits or demons. This supernatural power work through "the Human Hand"; meaning that it goes through another human being to inflict harm to the person.

According to the male interpreter, this punishment can be a result of your own or your parent's sins. He also said; "*When you know the cause of why the human hand has infected you it's possible to get rid of the problem. You have to confess you sins to God, then you are forgiven and the evil spirit will have no authority or power to control you*". The male interpreter claimed that many people go to healers before they seek out medical help at the hospital. And when they come to the hospital, many feel that it is a taboo to have been at a traditional healer. The male interpreter claimed that he thought many people in the community are suffering from mental illness, and especially CMD. He further explained that many people seek help for this at a traditional healer, but they may go for years being sick. According to the male interpreter, beliefs in supernatural forces can also be combined with scientific medical beliefs; "*The supernatural forces can affect hormones, neural systems, neural cells etc. They can for instance harm the brain cells. When all these systems interfere it can affect your emotions and mood*".

The female interpreter pointed out women's social situation as a factor causing a lot of depression and anxiety. It was explained how the women have little power in relation to their husband. "*Men can do what they want to their wives. He can hit her, he can beat her*". According to the female interpreter it is not acceptable to speak about social problems like these *"(…)even if you husband can hit you in the night and…have you badly, you don't…, you can't say anything, you just … say I'm sick. Have a headache. You can't say he did this and that… no... you can say I'm sick.* ". The female interpreter gave an explanation of how a social problem can lead to worries and "thinking too much", which again leads to depression: "*If your husband is drinking and taking all the money that you have...or you have to give it to the bar…and you are thinking and thinking and thinking… and you get depressed and sometimes maybe you*

can go to the doctor because… if you are depressed your adrenaline start to go high.

Yes, your adrenaline goes higher and higher… and then you can get that problem

sometimes without knowing it."

Discussion

Present study investigated the characteristics of CMD in rural Tanzania in a

sample of 28 patients seeking help in the primary health care system. All patients were

included based on high scores on SRQ-20, and two additional measurers, indicating

high probability of CMD. The symptom constellation was similar across the three

measurements, with the most frequent complaints being feelings of tiredness, low

energy, suffering of daily work, heart racing, feelings of unhappiness and many worries.

When the same patients were interviewed with the Explanatory Model Interview (EMI)

about their complaints, mental health complaints was only reported spontaneously by

one patients, and by half after probing about mental health complaints.

The *Etic/Emic* Discrepancy

The discrepancy between the scores on the self-report questionnaires and the

EMI may have many and co-existing reasons. Firstly, mental disorders is found to be

associated with stigma in many developing countries (Hyman, et al.). This may be one

of the reasons why so few of the patients expressed emotional problems. The Tanzanian

culture is a society that heavily sanctions the expression of emotional distress (Kaaya, et

al., 2008). This was also confirmed by the interpreters of the study. This can have

given the patients in the study a greater obstacle to discuss emotional problems in the

study. When Whyte (1991) studied attitudes towards mental health of the general population in Tanzania, less than 50% of the respondents recognized depression as an illness when described in a vignette. As the prevalence of depression in primary health care is similar in Tanzania to that of other developing countries (Ustun & Sartorius, 1995), the reason for not recognizing depression could be that people do not talk openly about their emotional problems. It might be more acceptable to express symptoms such as tiredness, low energy, heart beating fast etc., than to express emotional problems.

Secondly, the patient's expectations when coming to the hospital might affect what symptoms they discuss. As results showed, only one patient came with emotional problems as the primary problem, but another 13 patients reported some kind of emotional distress when probed. This may be a reflection of the difference between the quantitative questionnaires and the qualitative interview. The questionnaires are made of concrete statements or questions that the patients decide upon. In the open ended qualitative interview the patients might have been guided by their expectations. The low recognition rate and treatment rate for CMD in the primary health care, makes the main focus in primary health care upon physical symptoms and diseases, reflected in the somatic focus of the patients. At Haydom Lutheran Hospital there is a Mental Health Care Unit, but the treatment offered here is mainly medication to patients with epilepsy or severe psychosis. Based on this it is likely that the patients don't expect a focus upon mental health problems.

Thirdly, it is possible that the quantitative instruments in this study may have created a high number of false positives. However, this is not considered likely, as a cut-off of 9/10 at SRQ-20 was used as inclusive criteria for this study. This is a high cut-off compared to the conventional one of 7/8, and cut-off used in other studies in

Africa (Aidoo & Harpham, 2001; Bhagwanjee, et al., 1998). This high cut-off and the previous validations seem to largely refute that the instruments generated many false positives.

Etiology and Course of Sickness.

When analyzing the data, five categories for explanatory models were found, reflecting the patients' perceived etiology and course of their sickness. Reflected in the high percentage of patients falling in the category "no explanation", many patients seemed to have few thoughts and explanations about why they had fallen sick and about the character of their illness. This group of patients answered with few words and it was hard to get information about their own understandings of the illness.

Firstly, it is possible that they did not have many reflections around their health. The patients came from an area with much poverty, and the majority had little or no formal schooling. The sources of information and education about health in the society seem to be limited. This could be one factor in explaining their few thoughts surrounding their health. The lack of knowledge was also seen in the fears and perceptions they held about their symptoms. The patients often expressed fear of the pain causing damage to something inside them, like "*I am afraid my brain might be badly affected because of the headache*" or "*I am afraid of severe problems in my brain due to the effect of my ear*". These interpretations of their symptoms might have caused fear and exacerbated the experience of pain by the patients. Many patients did not make interpretations of their symptoms, saying *"I will wait for the results from the doctor"* or *"I don't know, doctor will decide"*. This could reflect a lack of knowledge about illness

and diseases. However, it also seemed to indicate a high confidence in the hospital and the medical personnel.

Secondly, patients may have been reluctant to present their own explanations and theories to the research team. The explanation for this may be connected to what Kleinman claimed; a medical setting is not an optimal setting for investigating EM (Kleinman, 1980). People often fear their thoughts and explanations will appear mistaken or illogical from a professional medical viewpoint, and therefore do not voluntarily express their own EM to medical personnel (Kleinman, 1980). Although the research team were not medical personnel, the fact that the research found place in a hospital setting, and the patients were asked questions about their health, may have triggered some of these fears. The costs of this were considered prior to the survey, however this setting was selected in order to best reach the target population of this study; patients with CMD seeking medical help at the hospital. This was considered important as the aim is to reduce maltreatment and increase detection of CMD within the hospital setting.

The patients who presented their explanatory models in psychosocial terms were all women. Descriptions of problems in their marriage, sometimes escalating to domestic violence, were prominent. Other traumatic life events, such as the death of family members, were also described as causes to their illness. Previous studies have found that marital problems are frequently cited reason for developing depression or "illness of thoughts" in women of Africa and other developing countries (Karasz, 2005; Okello & Ekblad, 2006; Patel, 2007). This is in accordance with the accounts from the female interpreter, who described the women's situation in the community as difficult in terms of women's lack of power in relation to their husband. Studies have indicated that

in cultures of developing countries there is a greater focus on difficulties in roles and

relationship than in Western societies, where difficult or traumatic life events are more

often mentioned as reasons for developing a depression (Karasz, 2005). In this sample,

both difficulties in relation of roles and relationships, and traumatic events were

mentioned, but problems in relationship were far more prominent. For those who

explained their sickness in terms of psychosocial problems, many worries were

prominent as the course of their sickness. They expressed and stated that they had many

worries, often several times during the same interview. When describing their concerns,

it was in relation to how they should manage to take care of themselves and their

children, their husband's alcohol problem and the violence they experienced at home.

This is in line with results from the study previously conducted in this area, where

hunger and taking care of own and their family's health was reported as the most

pressing concerns for the women (Pike & Patil, 2006).

Spiritual explanations of sickness is common in the African community

(Schulsinger & Jablensky, 1991). A fourth of primary health care patients with

psychiatric complaints have seen a traditional healer before coming to the primary

health clinic (Kilonzo & Simmons, 1998). The interpreters also claimed this to be

common beliefs and common practice in the community of Haydom. It was therefore

surprising that only three patients mentioned spiritual reasons as part of their EM. One

reason could be that it is difficult for the patients to present spiritual explanations to

researchers, believed to be holding another frame of reference. As one of the

interpreters claimed, it is taboo to express spiritual explanations when a patient comes

to the hospital. That HLH is a Christian Lutheran hospital might make it an even harder

for the patients to talk about this. The fact that the researchers were white and came

from a Western culture can also have affected the lack of information revealed about spiritual explanatory models. In Whyte's study about attitudes towards mental illness among the general Tanzanian population, it was found that the two most commonly held explanations for depression involved either supernatural agencies or psycho-social problems (Whyte, 1991). In current study these are among the explanatory models found, although for spiritual explanations not as frequent as expected. It can be assumed that spiritual beliefs are underreported in this sample. It must however also be considered that there might be differences in the EM held by patients with a mental illness and attitudes of the general population regarding mental illness. There are more healers than trained medical doctors in rural Tanzania; while the ratio of doctors to population is 1:20 000, it is 1:25 for healers (Swantz, 1990). Due to the high reported prevalence of CMD in the context of traditional healers (48%) and the position of spiritual explanatory models in the community, collaboration between healers and western trained medical personnel in dealing with mental disorders seems recommendable.

The sample strongly emphasized physical pain and reduction in their daily levels of function. This was reflected especially in the two groups where physical illness or disease was presented as a central part of their explanatory models. Physical illness or chronic pain can be an important factor contributing to the development of CMD (Gatchel, 2004). In the area studied the health system is less developed, and diseases like Tuberchulosis, Malaria and HIV/Aids are important and serious health threats to the population. This, in combination with a lack of knowledge about symptoms and diseases, may make the experience of physical symptoms both threatening and disabling to the patients. This can be a factor in explaining the high scores of mental distress on

the *etic* questionnaires. However, disability can also be one of the effects of CMD. In a

large study by Ormel, et al. (1994) the cross cultural relation between CMD and

disability was documented. Even when controlling for preexisting physical illness,

CMD was associated with considerable physical disability (Ormel, et al., 1994).

Severity of mental illness was found to correlate with severity of functional disability,

and was a more important contributor to functional disability than the severity of the

physical disease (Ormel, et al., 1994). This highlights how important CMD can be in

reducing the patients' level of functioning. The sample in this study emphasizes

disability as one of the major complaints both in the qualitative interview and the

quantitative questionnaires, and illustrates that this may be an important feature of

depression in this area.

In spite of high scores on all questionnaires, indicating considerable distress,

42% ranged their general health as "good". Is this a result of a distinction between

"problems of the mind" and bad health? (Aidoo & Harpham, 2001). In Aidoo and

Harpham's study from Lusaka, Zambia, (2001) they found that the women only

regarded physical symptoms as a sign of bad health, while emotional problems; low

self-esteem, unhappiness or thoughts of suicide were regarded "problems of the mind"

(Aidoo & Harpham, 2001). A similar distinction would explain why so many patients in

present study range own health as "good", however this needs to be examined further.

Only one patient came to the hospital with emotional problems as the presenting

problem. When asked to name their problems many patients suggested physical

disorders or symptoms, referred to it as "sickness" (ugonjwa), said they did not know or

did not understand the question. The fact that the majority of the patients came to the

hospital with somatic complaints, or subjective health complaints, is similar to the

findings of other studies, both form other developing countries and from developed countries (Patel, 2001). Research has shown that it is more likely that CMD get discovered if patients present with emotional complaints. It is therefore important for medical personnel to be aware that the patients in this population do not present with emotional complaints and do not talk about emotional complaints unless directly inquired.

Summary

In sum, the patients reported different complaints on the *etic* screening self report measures and in the *emic* interview. In general they gave little information about emotional complaints in the interview unless directly enquired about this, and many denied any emotional distress. The stigma of mental disorders in the community could be one possible factor for this. This can give important implications for diagnostication of CMD in this area. Psychosocial explanations, with emphasis on problems in marital relationships are among the explanatory models found. This seems to be viewed as social problems more than emotional ones, and the depression seem to be thought as occurring from "thinking too much" on problems and worries. Reduction in the ability to function in work and in daily life was seen as a major burden for this sample, and physical complaints were for many held as the reason for emotional distress. Spiritual explanatory models are believed to be prominent in this area; however this is not reflected in the results of this sample.

Limitations of the study.

There are several limitations of this study. It is a small study, explorative in nature, conducted in a primary health care setting and the results cannot be generalized to the population of rural Tanzania. The sample is a patient population from a hospital setting, and the results can therefore not be extended to represent the healthy population. The use of interpreter in studies is always a possible limitation. In this study language barriers made the use of interpreters necessary, but it may have influenced the patient's responses. It is possible that information got lost in the translation, and it sometimes influenced the possibility and ease of asking follow-up questions. The patients responded to the EMI relating to the problems came to see the doctor for. Maybe for this reason, they did not always understand the questions being asked. It is possible that it would have lead to a better understanding of CMD if it had been referred to the complaints reported at SRQ, HSCL-25 and DSQ. As previously mentioned, that the study was conducted in a medical setting might have affected the results. The ethnicity of the researchers can also have affected the results. Being white researchers from a very different culture might have influenced the type of information revealed in the interviews. Also, not being familiar with local customs and culture might have led to misunderstandings and ignorance of significant signs, figurative meanings and non-verbal communication by the patients. The cultural background and frame of reference of the interpreters has also influenced the interpretations of the results.

Implications for Further Research

This study investigates CMD from both an *emic* and an *etic* perspective, with both qualitative and quantitative measurements, to gain an insider's view of what CMD

is like in rural Tanzania. This was a first step towards improving mental health care in this area, as it is essential to first gain more knowledge about the characteristics of mental health here. When considering WHO's predictions of mental health in developing countries, and the limited international attention CMD in the developing world has been receiving, studies like this becomes important. A qualitative research approach, which seeks to understand the EMs of the study population and to investigate the dynamics of their illness experience, is important in gaining accurate and valid information about mental disorders in a community (Aidoo & Harpham, 2001). It is recommended that investigation of EM should be done in a larger sample, and as a comparison between patients and non-patients, to ensure predictive value for the whole community. Studies should be conducted in contexts outside the hospital, preferably in people's homes or in an environment they feel safe, to get a deeper and more elaborate understanding of people's explanatory models of mental health complains (Kleinman, 1980) Future studies of EM in developing countries may have beneficial effects on mental health policy and planning, both at the national and local level of implementation. Recognition of the true prevalence and costs of CMD in the community are important for the national health planning. At the local level, training clinicians to take patients EMs into account might make a contribution towards the diagnosis and treatment of mental health problems (Aidoo & Harpham, 2001).

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Appendix 1

Self-Report Questionnaire-20 (SRQ-20)

Scale Item	Yes	No	Don't know
1. Do you often have headaches?			
2. Is your appetite poor?			
3. Do you sleep badly?			
4. Are you easily frightened?			
5. Do you hands shake?			
6. Do you feel nervous, tense or worried?			
7. Is your digestion poor?			
8. Do you have trouble thinking clearly?			
9. Do you feel unhappy?			
10. Do you cry more than usual?			
11. Do you find it difficult to enjoy your daily activities?			
12. Do you find it difficult to make decisions?			
13. Is your daily work suffering?			
14. Are you unable to play useful part in life?			
15. Have you lost interest in things?			
16. Do you feel that you are a worthless person?			
17. Has the thoughts of ending your life been on your mind?			
18. Do you feel tired all the time?			
19. Do you have uncomfortable feelings in your stomach?			
20. Are you easily tired?			

Source: WHO (1993).

COMMON MENTAL DISORDERS IN TANZANIA

Appendix 2

Hopkins Symptom Check List -25 (HSCL-25)

Do these things bother you?	Not bothered	A little	Some	Extremely bothered	Don't know
1. Being suddenly scared for no apparent reason					
2. Feeling fearful					
3. Feeling fearful, faintness, dizziness or weakness					
4. Nervous or shakiness inside					
5. Heart pounding or racing					
6. Trembling					
7. Feeling tense or keyed up					
8. Headaches					
9. Spells of terror or panic					
10. Feeling restless, not being able to sit still					
11. Feeling low in energy, slowed down					
12. Blaming oneself for thing					
13. Crying easily					
14. Loss of sexual interest or pleasure					
15. Poor appetite					
16. Difficulty falling asleep or staying asleep					
17. Feeling hopeless about the future					
18. Feeling blue					
19. Feeling lonely					
20. Thoughts of ending one's life					
21. Feeling trapped or caught					
22. Worrying too much about things					
23. Feeling no interest in things					
24. Feeling everything is an effort					
25. Feelings of worthlessness					

COMMON MENTAL DISORDERS IN TANZANIA

Appendix 3

Dar Es Salaam Questionnaire (DSQ)

Do these things bother you?	Not bothered	A little	Some	Extremely bothered	Don't know
1.Headache					
2. Feeling tired					
3. heart racing					
4. Stomach-ache					
5. Aches in the whole body					
6. Screaming without awareness of doing so					
7. Vomiting					
8. Excess sleep					
9. Irritability					
10. Ill-ease/fever					
11. Turning inside the head					
12. Dizziness					

COMMON MENTAL DISORDERS IN TANZANIA

Appendix 4

What have you come to see the doctor about?

Reasons for consulting the doctor	n	%
Subjective health complaints		
Stomach pains	10	35.7
Chest pain/pain in the ribs	9	32.1
Pain all over the body	6	21.4
Headache	6	21.4
Pain in the heart	2	7.1
Pain in the uterus	2	7.1
Neck pain	2	7.1
Pain in the back	2	7.1
Pain in the ear	2	7.1
Sweating	2	7.1
Skin allergy/rashes	2	7.1
Coughing	2	7.1
Pain in the leg	1	3.6
Tiredness/weakness in the body	1	3.6
Dizziness	1	3.6
Pain in the joints	1	3.6
Gastritis, ulcer	1	3.6
Mental problems	1	3.6
Other complaints		
Fever	2	7.1
Vomiting	1	3.6
Big tonsils	1	3.6
Bitten by someone	1	3.6
Paralysis	1	3.6
Enlarged heart	1	3.6
Problem with the uterus	1	3.6

COMMON MENTAL DISORDERS IN TANZANIA

Appendix 5

Table A.
How long ago did you first notice these problems?

Duration of problem	n	%
Less than one year	12	42.9
One to three years	4	14.3
Three to five years	6	21.4
Five to ten years	4	14.3
More than ten years	2	7.1

Table B.
Results hoped to achieve from the treatment.

Categories	N	%	Quotes
To recover/get well	18	64.3	*"When I get medicine I hope i get well."*
To get better	8	28.6	*"For my thoughts I think I will get better after medicine*
Uncertainties about the outcome	1	3.6	*"Maybe I'll get better or maybe I'll die."*
Missing data	1	3.6	