"*Aduro kakra, mpaebɔ kakra* – a little medicine, a little prayer" (Read, 2012, pg.450)

A qualitative systematic review and meta-synthesis of the influence of culture, religion and spiritual practices on mental health/disorders in Ghana

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ABSTRACT

The mental health of global citizens has increasingly become a priority for international organisations worldwide. This is of great concern in LMICs such as Ghana where the mental health treatment gap is estimated at 98%. There are efforts being made in Ghana to undertake mental health research on cultural, religious and spiritual practices that have impact on mental health to inform effective, culturally-appropriate interventions. This systematic review explored the influence of culture, religion and spiritual practices on mental health/disorders in Ghana. How partnership working can be fostered with the incorporation of culture, religion and spiritual practices into mainstream mental healthcare in Ghana was also explored.

Four databases were searched using keywords relating to culture, religion, spiritual practices and mental health in Ghana. Firm inclusion and exclusion criteria were applied and only qualitative studies were included. Information was extracted from identified papers, formulated into a table and synthesised using thematic analysis and meta-synthesis. The systematic review was registered with PROSPERO.

Ten studies met the inclusion criteria. The results showed that the Ghanaian society like other African societies, holds a dichotomous view about health, and therefore places great emphasis on ensuring an equilibrium exists between the physical and spiritual health of the individual. This manifests in the practice of medical/healing pluralism whereby biomedical and traditional healing methods are employed concurrently. Findings also showed that due to the collectivist society that characterises Ghana, culture, religion and spiritual practices yield both positive and negative influences on mental health/disorders. Subsequently, this leads to contentions in attempts to afford balanced partnership working between biomedical/mainstream mental health services and traditional/faith healers to provide culturally-appropriate holistic mental healthcare.

The findings of this research revealed the need for commitment from both the government of Ghana and international agencies to ensure that mental health research, legislation and policies receive attention and financial support for interventions/treatments that are culturally sound while at the same time being human rights conscious and beneficial to the people. This is particularly important if Ghana's global burden of mental health, neurological and substance abuse disorders are to be addressed effectively.

Key Words

Mental health/illnesses/disorders; Culture, religion and spirituality; Traditional/faith healers; Mainstream mental health care; Global burden of mental health; Culturally-appropriate interventions; Partnership working.

Abbreviations

American Psychological Association	APA
Critical Appraisal Skills Programme Checklist	CASP Checklist
Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition	DSM-5
Evidence-Based Practice	EBP
Focus Group Discussions	FGDs
Gross Domestic Product	GDP
High-Income Countries	HIC
Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome	HIV/AIDS
International Classification of Diseases and Related Health Problems, Tenth Edition	ICD-10
Low-and-Middle-Income Countries	LMICs
Mental Health Gap Action Programme	mhGAP
Non-governmental Organisations	NGOs
National Health Insurance Scheme	NHIS
Population, Intervention, Comparison, Outcomes	PICOS
Preferred Reporting Items for Systematic Review and Meta-Analysis	PRISMA
Prospective Register for Systematic Reviews	PROSPERO
Sustainable Development Goals	SDGs
Sample, Phenomenon of Interest, Design, Evaluation, Research type	SPIDER
United Kingdom	UK
United Nations	UN
United Nations Education, Scientific and Cultural Organization	UNESCO
World Health Organization	WHO

Chapter 1: Introduction

1.1 *Rationale*

Having a good mental health and wellbeing is an integral part of living a happy, fulfilling life. The World Health Organization recognises this in their definition of health: "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946). This definition means good health has many dimensions (e.g. cultural, religious and spiritual) that need addressed holistically in order for overall wellbeing to be attained. Providing interventions that respond to these aspects of good mental health ensures the global burden of mental health problems and their treatment gaps are addressed effectively (Jansen, et al., 2015). Globally, it is estimated that four out of five people in Low and Middle Income Countries (LMICs) with mental, neurological and substance disorders do not have access to the mental health resources/interventions that they need. This treatment gap is exacerbated in many African countries, where the absence of treatment is the norm rather than the exception. For instance, Ghana has a population of about 25 million people and the mental health treatment gap is estimated at 98%, with approximately 65, 000 people living with severe mental illnesses/disorders (WHO, 2018a; Jansen et al., 2015).

Ghana was hailed an African pioneer when it introduced the National Health Insurance Scheme (NHIS) in 2003, a social intervention programme to help increase public utilisation of healthcare services and alleviate the financial burden of accessing quality healthcare. Over the years, the financial sustainability and cost-effectiveness of the scheme has received mixed reviews, with some researchers questioning its functional basis in an increasing healthcare-burdened society (Alhassan et al., 2016; Blanchet et al., 2012). Again, Ghana was commended by various global health and human rights organizations such as WHO when it introduced a new national mental health act in 2012 to streamline and make available an affordable, accessible mental healthcare system that will acknowledge and protect the rights of people with mental health problems (Walker and Osei, 2017). Although this act was introduced 6 years ago, the country is still awaiting its implementation and accompanying policies, and this has meant an ongoing challenge with addressing mental, neurological and substance disorders in a way that is effective, evidence-based and protects human rights. Furthermore, based on the WHO-AIMs (2011) survey findings, a summary report on the mental health system in Ghana was produced in 2013 that showed that of the 3.6% of the national budget allocated to healthcare, only 1.4% of it was spent on providing public mental health services, highlighting the need for national action/investment.

Ghana's population is made up of 72% Christians, 17.6% Muslims, 5.2% with traditional African beliefs and 5.2% of the population with no religion (World Atlas, 2017), and the mental healthcare services is influenced by socio-cultural, religious, and spiritual factors that intertwine to influence the help-seeking behaviours and options available to individuals with mental health problems and their

families. For instance, in a mixed methodology study conducted in 2015, of the 271 participants interviewed, 32% (87) believed that the causes of mental illness are spiritual or a curse, and 18% (50) of them identified faith based approaches as treatment options for mental health illness (Tawiah et al., 2015). This highlights the fact that culture, spirituality and religious beliefs play integral roles in the conceptualisation of mental health/illness in the delivery of effective mental health care and public education of mental health illness in Ghana.

Ghana is a Lower Middle Income Country (LMIC) with a relatively small gross domestic product (GDP) per capita, estimated at $1,641.5 (The World Bank Group, 2018), and this influences the affordability of healthcare and other services by "ordinary" Ghanaians. Data from the WHO Mental Health Atlas 2017 shows that in African regions, 43% of persons pay mostly or entirely out of pocket for their mental healthcare services, which is the highest across the globe (WHO, 2017). This has influenced the widespread use of faith and traditional healers for mental health problems, and WHO recognises that for the aforementioned reasons, accessing faith, traditional or alternative medicine will always be part of the fabric of the society in LMICs. This is acknowledged in the WHO Traditional Medicine Strategy 2014-2023 (WHO, 2014c) that aims to encourage governments, policy makers, healthcare practitioners and deliverers to adopt strategies that assess and make provisions to integrate traditional medicine into healthcare in a way that is culturally appropriate, person-centred and minimises human rights violations.

Research has shown that Ghanaians are not oblivious to the availability and importance of biomedical/mainstream mental health services, but they continue to actively utilise traditional healing systems (Read, 2012; Kyei et al., 2014). In global mental health, it is important to gain more understanding of the cultural, religious and spiritual practices in various societies and appreciate the complexities that surround promoting holistic culturally appropriate psychological well-being of people from different cultures/backgrounds (Nitcher, 2010).

A literature review conducted by Read and Doku (2012) examined 66 research studies conducted in Ghana on various aspects of mental healthcare. Their findings revealed that most of the 66 studies were small in scale and therefore could not be as impactful. They also highlighted the gap in clinical research that needs addressing for Ghana to advance in providing evidence-based mental healthcare to its citizens. It has also been ascertained that most mental health research in Africa tend to be epidemiological in focus and the few qualitative ones tend to be cross-national involving countries that have varying cultural bearings from Ghana (Ventevogel et al., 2013). A look at a systematic review of African traditional and religious healers' treatment of mental illness/disorders (Burns & Tomita, 2015) shows that although the findings are valuable, the study only analysed the quantitative data available, and there appears to be no qualitative synthesis of the research data. Consequently, there is a gap in the research

regarding the systematic synthesis of the mental health research evidence surrounding the influence of culture, religion and spiritual practices on mental health/disorders.

In the current research, a qualitative systematic review was employed with the primary goal to examine the influence of culture, religion and spiritual practices on mental health in Ghana. Qualitative systematic reviews are seen as very useful consistent approaches for gaining higher level of invaluable understandings into human phenomena and experiences, which quantitative approach cannot provide (Butler et al., 2016; Jones, 2004; Bearman and Dawson, 2013). Secondary aims were also investigated and these related to how these factors can positively or negatively influence mental healthcare delivery in Ghana and how partnership can be fostered between traditional approaches and biomedical/mainstream approaches to treatment.

1.2 *Research aims*:

The study aim was:

To systematically review and critically appraise available qualitative research studies on the influence of culture, religion and spiritual practices on mental health/disorders in Ghana

Secondary aims:

- To determine how these factors impact, positively or negatively, on mental health care delivery in Ghana
- To explore and identify how partnership working can be fostered and/or encouraged with the incorporation of cultural, religious and spiritual practices into mainstream mental healthcare in Ghana

1.3 *Dissertation overview*

This dissertation is made up of 5 chapters. Chapter 1 provides an overview of the justification for this dissertation project, particularly highlighting the need to address the mental health treatment gap in Ghana through deeper understanding of the influence of cultural, religious and spiritual practices on the treatment of mental illnesses/disorders in Ghana. The research objectives and aims are also outlined.

Chapter 2 outlined an investigation of the literature surrounding mental health and the global burden of treatment gaps. It also examines theoretical underpinnings of culture, religion and spirituality, in the wider context of Ghana, and how these interact in cultural psychiatry and mental health to help work towards a better understanding of mental health in Ghana

Chapter 3 outlined the methodological background of the review, including an account of the methods used to carry out the search strategy and data extraction

Chapter 4 provided a synthesis of the study characteristics

Chapter 5 presents a discussion of findings for included studies and the significance of outcomes in the context of Ghana and the broader evidence available.

Chapter 6 presents conclusions drawn from the review, and recommendations (including suggestions for future studies/research). Weaknesses/limitations of the review are also outlined in this chapter.

All the studies included in this review have been quality assessed, and this assessment is presented in Appendix 1.

Chapter 2 –Literature review

2.1 *Global burden of mental health prevalence rates/trend*

WHO defines mental health as "a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO, 2014b). The American Psychiatric Association (APA) in Diagnostic and Statistical Manual 5th edition (DSM-5) defines mental disorder as a "syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning" (APA, 2013, p.20). According to the Mental Health Foundation (2018) mental health can be called emotional health or well-being and it can affect how we relate to our surroundings or others.

The mental health of a country's people reflects the economic productivity of that country, therefore addressing mental health issues of people should be of utmost importance on national and global agendas. The care of people with mental, neurological and substance disorder is a growing concern for countries worldwide and the global mental health field. The global burden of mental, neurological and substance disorders accounts for 7.4% of all global burden of diseases (Whiteford et al., 2013). The top mental disorders impacting on total Years Lived with Disability (YLDs) are depression (5.49%), anxiety (3.29%), schizophrenia (1.69%), bipolar (1.11%), and other mental and substance use disorders (1.29%) (Vigo et a., 2016). These disorders are significantly high in LMICs where rates of depression and other common mental disorders are the cause of more than 80% of all non-fatal burden of diseases (WHO, 2017). Vigo et al. (2016) add that these figures are possibly underestimated and that the true figures are significantly higher considering the overlap of health problems.

Africa has an 85% treatment gap for mental, neurological and substance disorders, and this calls for the need for urgent action through research that will yield effective evidence-based practice (EBP) (Lund et al., 2012; StrongMinds, 2016). This worrying issue with treatment gap in LMICs is further exacerbated by the fact that in 2014, more than 45% of the world's population lived in LMICs, with 1 psychiatrist for every 100,000 people (WHO, 2014) and this figure has not improved as evident in the latest (2017) WHO Mental Health Atlas report. This means in African countries such as Ghana accessibility of mental health and psychiatrist services is difficult, and leads to compounding pressure on already strained health services (Chibanda, 2017). The findings from a cross-national study by Bird et al (2011) examining mental health policy intervention developments in Ghana, South Africa, Uganda and Zambia highlighted nine challenges affecting prioritising mental health development in Africa and called for urgent action from member states.

The WHO recognises this worrying global trend and has called for member states to research and adopt strategies that will reduce the global impact of mental, neurological and substance disorders. For example, they have introduced the Mental Health Gap Action Programme (*mhGAP*) (WHO, 2008) that outlines clear plans, programmes and strategies for scaling up cost-effective culturally-appropriate mental health interventions and services, especially in resource-poor parts of the world. Moreover, mental health is included in the United Nation's Sustainable Development Goals for 2015-2030, that by 2030 countries would have reduced by one third the burden of non-communicable diseases and mental disorders by outlining promotion, prevention and treatment strategies (UN, 2015).

2.2 *Culture and mental health*

In order to understand how other people around the world perceive what constitutes mental health/disorders, we have to look at it in the wider context of what they perceive as culturally normal. According to Loewenthal (2006, p. 4), the influential British anthropologist, Edward Burnet Tylor (1871) defined culture as "that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society". In this context, culture denotes the learned characteristics that is passed down from generation to generation in a society or community that defines that society/community. The United Nations Educational, Scientific and Cultural Organization (UNESCO) (2002) also defines culture as "a set of distinctive, spiritual, material, intellectual, and emotional features of society or a social group, and encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions, and beliefs" (UNESCO, 2002, p. 4). Cultural beliefs and values influence help-seeking behaviour for health problems (Zola, 1973). The concepts of individualism and collectivism are influenced by cultural factors. Ghana, like most African countries, is viewed as a collectivist society/culture, therefore the approach Ghanaians take to address mental health issues is influenced by this collectivistic feature (Ma and Schoeneman, 1997).

With increasing globalisation, healthcare professionals are expected to have cultural knowledge and awareness in order to assess, deliver and implement culturally-appropriate healthcare services/interventions, bearing in mind that that clients' normal and/or abnormal behaviours may manifest in the context of social and cultural norms (Juntunen, 2005). The DSM-5 (APA, 2013) acknowledged this when they introduced the Cultural Formulation Interview (CFI) section to incorporate cultural issues into psychiatric diagnostic interviews, but prior to its publication, a qualitative study by Aggarwal et al (2013) identified some potential barriers to effective implementation of the CFI including lack of differentiation from other treatments, ambiguity of design, over-standardization of the CFI, and severity of illness. Cultural sensitivity is also addressed in the International Classification of Diseases and Related Health Problems (ICD-10) in a list of culture-specific disorders that should be considered during assessment/diagnosis. Paniaga's (2018) critique of

how culture is addressed in both the DSM-5 and ICD-10 highlights that there is a greater emphasis for mental health practitioners to consider the influence of cultural factors on psychiatric symptoms in the DSM-5 compared to the ICD-10. The writer goes on to argue that given that the use of the ICD-10 is internationally encouraged/advised, its ambiguity in addressing the assessment process for identifying culture-specific syndromes makes it less superior to the DSM-5 in this context. Fernando (2014) highlights that psychiatry, from which mental health was coined, was developed in the culture of the West, therefore its application in other cultures needs to be undertaken with caution, applying cultural humility in the process. Moreover, Miller (2014) warns global mental health practitioners against engaging in 'cultural imperialism', whereby interventions/services are developed in high-income-countries (HICs) and transported to LMICs because they have been assessed as having good 'evidence base'. This point is also stressed by Kleinman (1977) who warned against what he termed 'category fallacy' of taking mental illness diagnosis from different social settings such as UK and applying them to another such as Africa.

Culture-specific disorders or culture-bound syndromes are often perceived as strange, outlandish and normally associated with societies/communities who were perceived as less psychologically developed (Ventriglio et al., 2016). One such culture-specific syndrome is *brain fag* – having difficulties in concentrating, remembering and thinking experienced by high school and university students in response to the challenges of schooling normally found in Nigeria and other West African countries (Aina and Morakinyo, 2011). Culture-bound syndromes may be associated with a community/society, but the features of the illness may not be exclusive to that community, example, culture and hallucination (Lario et al., 2014).

African cultural philosophy and its influence on perception of mental health/illness has been studied over the years (Aina and Morankinyo 2011; Juntunen, 2005; Johnson, 1994). In African culture, conceptualisation of health is viewed through a lens of physical and spiritual/supernatural components and this means the assessment/diagnosis of health issues including mental illness/disorders requires an understanding of these components (Johnson, 1994). For example, in their mixed methods study of supernatural belief systems and perception of mental disorders in Ghana, Kyei et al (2014) found that great emphasis is placed on spiritual factors' influence on causality and aetiology of mental disorders/illnesses.

2.3 *Spiritual and religious practices and influence on mental health*

According to Koenig (2009), man's inquisitive nature and quest to investigate, explore and find meaning/purpose to his life over the years has led to society's organised rituals, belief systems, and practices relating to a supernatural being. Many scholars believe religion serves as a way to help individuals accomplish their yearning for a meaning and purpose to their life (Galek et al., 2015; Frankl,

1992). The Oxford Living Dictionaries (2018) defines spirituality as "the quality of being concerned with the human spirit or soul". Spirituality is concerned with the unique inner subjective feeling of providing meaning, purpose and hope for the individual (Rogers and Wattis, 2015). One defining characteristic of spirituality is that it is free of prescribed rules, regulations or practices that have to be followed or adhered to, and this broad definition of spirituality is seen as a welcoming feature that helps one embrace its inclusivity (Koenig, 2009; Gall et al., 2011). In healthcare, religion and spirituality are often used interchangeably (Gall et al., 2011; Rogers and Wattis, 2015; Galek et al., 2015). A literature review by Koenig (2009) on the influence of religion and spirituality on mental health symptoms and recovery points out that although sometimes these phenomena may cause some patients to engage in deep practices and behaviours that may be perceived as unhealthy, the majority of the healthcare literature support the argument that the effect of spiritual or religious practice on mental health is of no adverse effect. Promoting spiritual and religious practices are seen as important to delivering enhanced holistic mental health care globally (Mayer and Viviers, 2014; Koenig, 2009; Chidarikire, 2012).

2.4 *Ghanaian culture and medical pluralism*

Due to African cultural philosophies centring around a dichotomous approach to life, the practice of medical/healing pluralism is common in most Ghanaian and African cultures (Kasilo et al., 2010). Medical/healing pluralism can be defined as the utilisation of more than one medical system or use of both mainstream/conventional and traditional/alternative medicine (Wade et al., 2008). This approach and its influence on help-seeking behaviours has been studied in HIV/AIDS patients in Southern Africa (Moshabela et a;l., 2017; Moshabela et al., 2011). Findings showed it can sometimes enhance holistic care or prolong treatment duration/efficacy. Medical pluralism practices are recognised by the Ghanaian government, and the introduction of the Traditional Medicine Practice Act 2000 recognised the utilisation of traditional/faith healers in Ghana. One of the objectives of the act is to streamline and monitor the works of traditional medicine practitioners, as human rights issues have been one of the stigmatizing beliefs associated with traditional medicine/healers (Read, 2009). Identified issues/challenges in global mental health calls for prioritising development of culturally-appropriate interventions in LMICs such as Ghana that incorporates traditional health systems (WHO, 2014c; Collins et al., 2011; WHO, 2008; Saxena et al., 2007).

With the conceptualisation, causality and aetiology of mental illness in Ghanaian culture being rooted in understandings of dichotomous philosophy of culture, religion and spiritual practices, it is important these are systematically examined and their wider implications for effective healthcare delivery and collaboration discussed.

Chapter 3 – Methodology

To help reduce reporting bias, the review was registered with the International Register of Systematic Reviews (PROSPERO), Registration Number: CRD42018099315. The University of Glasgow library website was used to carry out a full search of OvidSP MEDLINE, PsychINFO, Web of Science Core Collection and CINAHL databases. The grey literature was also searched including WHO, The Kintampo Project and Republic of Ghana Ministry of Health publications for relevant information. The search strategy combined keywords relating to three main areas: (a) Ghana, (b) Mental health (including mental illnesses/disorders and psychiatric health/illnesses, and (c) Culture, religion and/or spiritual practices. Each search term was copied and pasted from one database to the other to reduce any errors (Higgins and Green, 2011). Journal articles were filtered to include those in English or translated into English and published between January 1990 and May 2018. A third filter for this first stage was "humans", but this was not a feature that was available across all the chosen databases, so this had to be undertaken manually. The search terms complied with the SPIDER framework (see table 1) which ensured the Sample, Phenomenon of Interest, Design, Evaluation and Research type of each search result was established. The SPIDER framework was adopted instead of the popular PICOS framework (Population, Intervention/exposure, Comparison, Outcomes) because for research question analysis, the SPIDER tool has been shown to be more suitable as it helps answer the specificity and sensitivity elements of qualitative research methodologies (Cooke et al., 2012). Data was searched for, using strict inclusion and exclusion criteria, making sure that the search process was undertaken methodically. The search was fully completed on the 10/06/18.

Table 1: SPIDER framework adapted from Cooke et al (2012)

SPIDER framework	
Sample	Ghanaians
Phenomenon of **I**nterest	Culture, religion and/or spirituality practices
Design	Systematic review
Evaluation	Mental health/disorders
Research type	Qualitative

The following inclusion and exclusion criteria were applied to selected applicable studies:

3.1 Inclusion criteria

- Qualitative research studies
- Studies conducted exclusively with Ghanaian populations in Ghana
- Participants' job descriptions evident, if not age range:10 years or above
- Studies conducted between January 1990 and May 2018

- Studies meeting WHO definition of mental health as a "state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO, 2014b)
- Studies meeting the WHO definition of mental disorders, i.e. a broad range of problems with different symptoms, generally characterized by some combination of abnormal thoughts, emotions, behaviour and relationships with others (WHO, 2018b)
- Studies examining culture as defined by Napier et al (2014): "a set of practices and behaviours defined by customs, habits, language, and geography that groups of individuals share."
- Studies examining religion as defined in the Oxford English Dictionary: "the belief in and worship of a superhuman controlling power, especially a personal God or gods." (Oxford University Press, 2018)
- Studies examining spirituality as defined in the Oxford English Dictionary: "The quality of being concerned with the human spirit or soul as opposed to material or physical things." (Oxford University Press, 2018)

3.2 Exclusion criteria

- Full papers unavailable in English text or English translation unavailable
- Research studies conducted before 1990
- Studies that do not meet the ICD-10 (1992) or WHO (2018b) definition of mental disorders
- Studies that focus exclusively on specific mental health disorders e.g. depression
- Studies that are quantitative or use mixed methodologies research designs
- Cross-national qualitative studies that include Ghana where Ghana is not the focus
- Studies that involve young people below age 10 years
- Studies that examine biological/physiological influences of mental health in Ghana

Qualitative research studies were included only in the review as research shows it is the best approach in presenting rich data on people's experiences, views/perspectives and any other human phenomenology pertaining to the research topic/question (Bearman and Dawson, 2013) Moreover, qualitative research approaches such as ethnography, grounded theory, phenomenology and narrative research make invaluable contribution to the medical and healthcare education, literature and practice field (O'Brien et al., 2014).

There are various explanations of mental health, however, studies included in the review were required to meet the WHO definition of mental health (WHO, 2014b) or the WHO definition of mental disorders (WHO, 2018b). Due to the aim of the review – analysing the influence of culture, religion or spiritual

practices on mental health/disorders in Ghana – studies were only included in the review if they examined one or more of these phenomena (see inclusion criteria). Studies conducted before 1990 were excluded due to being outdated and less likely to reflect recent sociocultural changes that may have taken place in Ghana. As pointed out by Napier et al (2014), culture is not a static phenomenon, but is rather always evolving and changing with current developments/trends.

The preliminary stages of this review did not yield robust research studies that employed rigorous qualitative methodologies in order to meet inclusion criteria for the review. For example, Fosu (1995) examined Ghanaian women's help-seeking behaviours for mental disorders, but the methodology was poor quality and he used a quantitative research methodology approach to do this. Studies that outlined the job description of participants or gave a description of participants ages were included. If study's participants were below 10 years old these were excluded because they will be too young to give a depth narrative of their experiences of how culture, religion and spiritual practices influence mental health/disorders.

3.3 Study selection and data extraction process

Articles retrieved from database searches were entered into the Endnote reference manager software. Duplicates were then removed. Study titles and abstracts were then evaluated for suitability against the inclusion and exclusion criteria. Full articles were chosen for selection by the primary researcher and all of these were assessed by a second reviewer (the systematic review supervisor). Any anomalies were fixed through discussion and re-examination of the inclusion/exclusion criteria. Having full articles assessed by a second reviewer as well as the primary researcher helped to minimise bias relating to selection of studies, thereby strengthening the consistency and systematic process of the review (Butler et al., 2016). Reference lists of included studies were also examined for any studies that might meet the inclusion criteria. It was noted that most articles selected from the reference list of included studies reappeared in the results of other database searches. This suggested saturation of the data. It was also noted that there was a high rate of articles duplication across all four databases/data (Fusch & Ness, 2015).

Database searches and study selection process were recorded and presented in the form of a PRISMA flow diagram (Moher et al., 2009) (see figure 1), to demonstrate how articles were narrowed down. Screenshots of the search strategies were taken and included in a Microsoft Word document to enable replication of the search process (see appendix 2). To ensure the purpose of this qualitative systematic review were met, a data extraction tool was designed by incorporating information from Butler et al (2016) and Rees et al (2006). The tool was piloted on 4 papers prior to its use on included studies and was modified as appropriate during the data extraction process. Extraction of data was undertaken by the researcher and the review supervisor examined the table for consistency of data extracted across studies. Information from selected studies were methodically extracted by examining bibliography,

study aims, inclusion criteria and demographics, study methods and analysis, themes, summary of main findings, ethical considerations, funding sources, and quality assessment. This information was presented in a table with text (see table 2).

The Critical Appraisal Skills Programme (CASP) (2018) checklist for qualitative research was used to assess quality in relation to rigour, credibility and relevance/applicability of included studies. The scoring system for ranking studies using the CASP (2018) checklist was based on one designed by Butler et al (2016). This assessment was undertaken by evaluating all studies for their rigour or trustworthiness by ranking them based on their credibility, transferability, dependability and confirmability features of the research methods process (Hannes, 2011). This information was also used in the data synthesis process to emphasise the quality of individual studies and strengths of their results. The assessment of study quality was useful for determining which studies were more transparent and consistent in answering their research questions and providing insight into the particular phenomena being studied. Risk of bias within and across studies was assessed using The Cochrane Collaboration's Risk of Bias Tool for included studies (Cochrane Methods, 2018) (see table 3). The various forms of bias that were searched for within/across studies included selection bias, reporting bias, performance bias, detection bias, attrition bias, and any other biases such as researcher bias. Included studies were then described as having either a 'low', 'medium', 'high' or 'unclear' risk of bias (Cochrane Methods, 2018). Applying the former methodological approaches to the review also facilitated the reduction of any possible biases related to thematic analysis.

Qualitative data is data that describes but does not seek to measure the qualities, characteristics, properties, etc. of a thing or phenomenon. It can also be defined as first person constructs (participants' quotes) or second order constructs (researcher interpretation, statements, assumptions and ideas (Butler et al., 2016; Pope et al., 2000). A narrative summary and/or thematic analysis were two potential qualitative data synthesis options for analysing the included studies. Narrative summary involves selecting, chronicling, and gathering of evidence to yield an interpretation of the evidence. On the other hand, thematic analysis involves the identification of noticeable or recurring themes, concepts and ideas in the raw data, and summarising the outcomes of different studies under thematic headings (Dixon-Woods et al., 2005). Thematic analysis allows for data to be interpreted into a higher level of abstraction and is one of the most commonly used approaches for qualitative data synthesis (Dixon-Woods et al, 2005; Bearman and Dawson, 2013; Thomas and Harden, 2008). Narrative summary was considered for the review but due to its criticism of having poor transparency, a thematic analysis approach was deemed as more appropriate for the synthesis of findings.

The thematic analysis and meta-synthesis processes outlined by Thomas and Harden (2008) was adopted for this process. The primary researcher manually undertook the inductive coding and analysis process using the thematic analysis stages outlined by Butler et al (2016) (Appendix 3) for each included

study to elucidate key themes and subthemes and discuss the findings with the reviewer supervisor to ensure they consistently reflected the primary data from included studies. Following the thematic analysis, 15 descriptive categories were identified from the initial coding: (1) Ghanaian culture and personhood (2) sociocultural conceptualisation of mental health/illness (3) Religious/spiritual beliefs systems about mental health/illness (4) Mental health treatment providers (5) Mental health treatment approaches/options (6) Partnership/collaborative working issues (7) Human rights issues (8) Social attitudes and family responsibility (9) Traditional/faith healers regulatory issues (10) Psychotropic medication and concepts of health (11) Mental illness and social status (12) Financial issues, human resources and help-seeking behaviours (13) Psychosocial support (14) Culturally-appropriate holistic approach and (15) Healing pluralism and accessibility. In the third stage, meta-synthesis of the descriptive categories were further examined, amalgamated where appropriate, and developed into six analytical themes: (1) Ghanaian notions of mental health/disorder/illness as rooted in sociocultural ontology (2) Ghanaian sociocultural concepts of self, social status and mental health (3) Mental health treatment approaches/provision (4) addressing mental health human rights issues/abuses in a sociocultural context (5) Financial and human resources issues and (6) partnership working as a solution to effective holistic care.

Research participant's quotations reflecting outlined themes are presented in table 4.

Table 2: Summary of selected studies / papers (Pages 19 – 38)

Bibliography	Study aim	Inclusion criteria & demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding source
1. Opare-Henaku, A. and Utsey, O.S. (2017) *'Culturally prescribed beliefs about mental illness among the Akan in Ghana'*	To explore how Akan cultural beliefs influence constructs of mental illness and treatment of people with mental illness	N= 30 participants: (12 males, 18 females) 1 participant dropped due to not being Akan Age range: 30 -80 years Occupation: farming, petty trading, public sector worker, 4 participants did not disclose occupation	Phenomenology Purposive sampling Individual and group semi-structured interviews, of which: 14 interviewed individually and 16 in Focus Group Discussions (FGDs)	Local mental illness labels Mental illness presentations in children vs adults Gender-related issues in mental illness presentations Mental illness, a retributive or spiritual illness	Akan cultural beliefs systems influence concepts of causes of mental illness and care for people with mental illness Akan culture's dual causality belief – nonspiritual and spiritual explanations of mental illness can lead to contradictory explanation of	**CASP score: 8/10** **<u>Strengths</u>** Data saturation Recruited participants from two different communities Open interview questions exploration and analysis of mental illness constructs Rationale for age restriction Good credibility and transferability factors –used 2 coders/analysts and Verbatim quotes	No financial support for research, authorship or publication

		Recruited from two suburban Akan communities in Aburi, Eastern Region, Ghana who were Ghanaian adults	Interviews in Akuapim Twi Digital recording Thematic analysis	Social immorality and mental illness Supreme Being influence on wellbeing	aetiology of mental illness Akan culture beliefs influence approach to help-seeking	Outlined study findings limitations **<u>Weaknesses</u>** Small sample No stakeholder/participant checks of findings/interpretations poor researcher reflexivity Only two Akan communities in rural areas used; findings limited No evidence of aftercare support/arrangements for participants	

Bibliography	Study aim	Inclusion criteria& demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding source
2. Arias, D., et al. (2016) *'Prayer camps and biomedical care in Ghana: Is collaboration in mental health care possible?'*	To examine the beliefs and practices of prayer camp staff and the perspective of biomedical care providers in helping foster the potential for inter-sectoral partnership working	N= 50 participants Prayer camps sampling : 14 participants : (4 prophets, 5 church elders, 2 pastors, a reverend, a church member, and a caretaker) 3 psychiatric hospitals sampling: 36 participants of nurses and other biomedical staff	Grounded theory Purposive sampling Open-ended semi-structured interviews; 34 individual interviews and 16 in FGDs Data collected during 7-week period in June – July 2014	Prayer camps: Spiritual vs physical causes of mental illness Biomedical staff: Professional versus personal beliefs about mental illness Fasting and chaining as treatments Collaboration based on mutual	Both prayer camps and biomedical staff interested in partnership working Adverse practices often used at prayer camps frequently raise concerns from biomedical staff, leading to scepticism of potential partnership working Differences in views for long term	**CASP score: 7.5/10** **<u>Strengths</u>** Triangulation of data Independent transcriber Rationale for research approach and design used Stakeholder checking at every stage Good credibility factors – independent coding by all researchers (4) **<u>Weaknesses</u>**	Non declared

		Recruited from 9 prayer camps and 3 national psychiatric hospitals in the Central and Greater Accra regions of Ghana Gender profile or age range/restriction not provided	Interviews in English, Twi or Fanti Data collection: Audio recording and handwritten notes transcribed verbatim Constant comparative analysis	respect for each other Assistance from NGOs for collaboration to work	approach to treating mental illness poses challenge for effective collaboration Both parties viewed mental illness as having spiritual and biomedical components	No data saturation No rationale for 1 participant drop-out – attrition bias No gender profile/age restriction Poor researcher reflexivity discussion No inclusion of people with mental illness or their families in sampling process	

Bibliography	Study aim	Inclusion criteria& demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding source
3. Yendork, S.J., Kpobi, L. and Sarfo, A.E. (2017) *'"It's only 'madness' that I know of": analysis of how mental illness is conceptualised by congregants of selected Charismatic churches in Ghana'*	To explore church members' knowledge and conceptualisation of mental illness, church teachings on mental illness and how these influence the mental well-being of congregants	N= 86 participants (38 males, 48 females) 14 were church leaders, pastors, prophetesses, deacons and deaconesses 72 congregants Recruited from 6 Charismatic/Pentecostal churches in Kumasi (3), and Accra (3)	Phenomenological qualitative design In-depth semi-structured interviews, focus group discussions and observations Snowball, convenience and purposive sampling techniques Interviews in English or Twi Tape recorders	Mental illness as deviant behaviour Mental illness as synonymous to madness Psychotic disorders most commonly known Limited knowledge about mental illness Church teachings of "invincibility theology"	Contemporary churches play double-edged role on mental health; some teachings can encourage over-dependence on individual's self-declaration for solutions to ill health but they can also promote self-enhancing mechanisms to manage mental illness Participants' knowledge of mental illness mostly surrounds	**CASP score: 7.5/10** **<u>Strengths</u>** Triangulation of data Stakeholder checking and regular debriefing of researchers' peers Detailed description of data analysis process 3 coders and discussion of results **<u>Weaknesses</u>** No data saturation No rationale for participant's age range No sample of interview questions, affecting	Nagel Institute of World Christianity, Calvin College and a donation from John Templeton Foundation

			Data triangulation Transcription of interviews Interpretative Phenomenological Analysis (IPA)	Public psycho-education Collaborative working	psychotic disorders Need for public and media education about psychological and mental distress	dependability and consistency No details of how 'informed consent' was obtained No evidence of support services mechanism available to participants Poor researcher reflexivity and discussion of biases	

Bibliography	Study aim	Inclusion criteria& demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding source
4. Read, U., Adiibokah, E. and Nyame, S. (2009) '*Local suffering and the global discourse of mental health and human right: An ethnographic study of responses to mental illness in rural Ghana*	To gain understanding of how practices such as chaining and beating of people with mental illness are embedded in sociocultural meanings and responses to people with mental illness	N = 114 participants N = 25 with mental illness, 31 carers, 4 pastors, 3 traditional healers, 3 Imams, 1 "Mallam" N= 47 in FGD with mental health nurses, young people, Muslims, cannabis users, church members and parents Recruited from communities and villages in the Kintampo District	Anthropology - Ethnographic approach Purposive sampling Participant observations, conversations, semi-structured interviews and focus group discussions Data collection between October 2007- December 2008 Interviews in English or Twi	Limits of family care contribute to use of physical restraints e.g. shackles and chains Limited efficacy of psychotropic medication Churches and shrines easily accessible and affordable Madness and loss of social status Chains/shackles as part of treatment in	Use of chaining and beating of mentally ill people commonplace practice in Ghana Human rights issues rising from chaining and beatings inadequately addressed locally or nationally Families of mentally ill relatives seen as socially, economically and physically	**CASP score: 8/10** **<u>Strengths</u>** Triangulation of data In-depth discussion of contextual issues and rationale research approach Prolonged engagement with participants Good approach to resolving issues arising during research Addresses dependability issues such as timeframe of	Economics and Social Research Council, UK in collaboration with Kintampo Health Research Centre

		Gender profile or age of participants no provided	Data triangulation Digital recordings and transcribed and translated into English Grounded theory approach to generate hypotheses and themes	shrines/prayer camps Disagreement in communities re: physical restraints Human rights issues	responsible for their care Ghanaian culture/ideals of personhood often leads to social exclusion of people with mental problems	research and processes taken to obtain consent Good discussion of researcher reflexivity and biases **<u>Weaknesses</u>** Findings from one rural area sample; limits generalisability	

Bibliography	Study aim	Inclusion criteria& demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding source
5. Ae-Ngibise, K., Cooper, S., Adiibokah, E., et al. (2010) *"'Whether you like it or not people with mental problems are going to go to them': a qualitative exploration into the widespread use of traditional and faith healers in the provision of*	Firstly, to explore reasons underpinning the widespread appeal of traditional/faith healers for mental health in Ghana and secondly to identify the barriers and enabling factors that may exist for fostering alliances between traditional/faith	N= 122 participants Participants were policy makers, health professionals, psychiatric service-users, teachers, police officers, academics, religious and traditional healers Recruited from 5/10 regions in Ghana	Grounded theory Individual semi-structured interviews and focus group discussions held: 35 at national level 23 at regional level 64 at district level Purposive sampling Interviews in Twi	Traditional aetiology and causal belief systems Psychosocial and spiritual support Accessibility and affordability Human rights issues Solidarity and internal referral system	Cultural beliefs and aetiology of mental illness closely linked Number of social, economic and cultural factors influence use of traditional/faith healers Suspicion and scepticism on both sides impedes the potential for collaborative working environment Accessibility and affordability issues	**CASP score: 5.5/10** **<u>Strengths</u>** Data triangulation Data from national, regional and district level Sought ethical approval from 4 sources **<u>Weaknesses</u>** No rationale for participant selection Data collected at national, regional and district level but no justification provided	UK Department of International Development (DFID)

mental health care in Ghana"	healers and conventional mental health practitioners	No gender profile or age range provided	Transcription and back translation NVivo 7 qualitative data analysis software for coding and analysis Framework analysis approach used	Mutual scepticism Working partnerships	fuels the widespread use of traditional/faith healers compared to conventional mental healthcare Unequitable distribution of mental health resources influence people's help-seeking behaviour	Data collection settings not clear No discussion of researcher reflexivity Poor data analysis description	

Bibliography	Study aim	Inclusion criteria& demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding source
6. Kpobi, L. and Swartz, L. (2018) *"'That is how the real mad people behave': beliefs about and treatment of mental disorders by traditional medicine-men in Accra, Ghana"*	To explore the causal beliefs and treatment methods of traditional medicine-men from Accra, Ghana and to describe their diagnostic/treatment methods for mental disorders	N= 8 traditional healers (1 female and 7 males) Age: between 53 – 73 years. Average age was 45 years old Recruited in the Greater Accra area	Phenomenology Individual semi-structured interviews Snowball sampling Interviews in English & Ga Method of data collection unavailable Inductively analysed using	Ghana/African notions of illness and health Mental disorders and supernatural beliefs Diagnostic process for identifying disorders Method of treatment Role of traditional healers	Beliefs about mental illness dominated by supernatural concepts Mental illness often seen as punishment from the gods Strong dependence on spiritual guidance from the gods for diagnosis and treatment Heavy reliance on supernatural guidance can pose potential risk and prevent people from	**CASP score: 7/10** **<u>Strengths</u>** Extensive background rationale for study topic area Sought ethical approval from 3 ethics committees, Description of participant inclusion criteria and sample characteristics Good response to issues arising during study Outlines specific steps used in data analysis **<u>Weaknesses</u>** Method of data collection unavailable	Stellenbosch University Graduate School of Arts and Social Sciences & National Research Foundation of South Africa

			thematic analysis using ATLAS.ti (v8) data analysis software		exploring other help available National regulation of traditional medicine-men practices can be difficult and ambiguous	Poor researcher reflexivity/bias No evidence of process taken to obtain informed consent Small study focused on one area, therefore findings limited in its reliability No discussion of credibility process checks	

Bibliography	Study aim	Inclusion criteria & demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding source
7. Read, U. (2012) *"I want the one that will help me completely so it won't come back again": the limits of antipsychotic medication in rural Ghana"*	Explores sociocultural responses to treatment with antipsychotics by people with mental illness and their families in rural Ghana	N= 67 participants with long-term mental illness e.g. psychosis & schizophrenia N= 47 in FGD with mental health nurses, young people, Muslims, cannabis users, church members and parents Recruited from communities and villages in the Kintampo District	Follow-up case study Ethnographic study approach using case studies Purposive sampling Participant observations, home visits, informal conversations and semi-structured interviews Interviews in English & Twi Digital recordings transcribed and back translated	Mental illness treatment Psychotropic medication and its efficacy Cultural concepts of health vs psychotropic medication side effects Mental illness vs social role of a Ghanaian Mental illness and healing	People with mental illness and their families are not oblivious to the availability of psychiatric services Antipsychotic medication inability to sustain permanent cures cast suspicions on their long-term effectiveness Practices of medical pluralism part of African and Ghanaian culture	**CASP score: 7.5/10** **<u>Strengths</u>** An ethnographic follow-up case study Gives criteria for inclusion of participants into study Notes at end of study of further discussions Good data triangulation Prolonged engagement with participants Use of verbatim **<u>Weaknesses</u>**	Economic and Social Research Council, UK

			Case studies presentations	pluralism practices Complexities with transporting HICs treatments to LMICs	Evidence-based treatments need to also be sensitive to local knowledge of concepts of healing Consistent monitoring of patients paramount to recovery	Findings from one rural area sample; limits generalisability	

Bibliography	Study aim	Inclusion criteria & demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding source
8. Asamoah, K.M., Osafo, J. and Agyapong, I. (2014) *"The role of Pentecostal clergy in mental health-care delivery in Ghana"*	To examine the views of Pentecostal clergy on the role of the church in mental health-care in Ghana and the potential problems they may pose to collaborative work efforts	N= 20 Pentecostal clergy from 15 different churches recruited at School of Theology and Missions of the Central University College in Accra Age range: 30 – 50 years All males	Phenomenological Individual semi-structured interviews Purposive sampling Interviews conducted in English Audio recordings, transcribed verbatim Interpretative, Thematic analysis	Diabolism or biology causes of mental disorders/illness Acted roles of Pentecostal clergy in mental health care Perceived barriers to roles in mental health care Mental health education in churches and training programmes	Participants hold supernatural explanation for the causes of mental illness Pentecostal clergies offer social support and health education Due to imbedded cultural beliefs in the supernatural realm in Ghana, Pentecostal clergy will continue to be part of the landscape of mental health-care delivery in Ghana Stigma attached to some Pentecostal clergy	**CASP score: 6.5/10** **<u>Strengths</u>** Detailed description of data analysis process Outlines the broad and subtheme findings after coding Good sample size **<u>Weaknesses</u>** Focuses on Pentecostal clergy, limits findings No evidence of ethic committee approval or	Not provided/unclear

				Collaboration between Pentecostal clergy and conventional mental healthcare system	healing processes can make it difficult for collaboration/partnership working	how informed consent was obtained No evidence who undertook data analysis Poor researcher reflexivity Only male sample, limits applicability	

Bibliography	Study aim	Inclusion criteria & demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding sources
9. Quinn, N. (2007) "*Beliefs and community responses to mental illness in Ghana: the experiences of family carers"*	To explore different cultural beliefs and attitudes of family carers and how this influences responses to mental illness in four places in Ghana	N= 90 (n= 80 family carers and n= 10 service users) (40 males, 40 female) Occupation: Professional/skilled labour, trader, farmer, unemployed/retired Religion: Christian, Muslim, traditional and spiritual Recruited from Accra, Kumasi, rural Ashanti region and Northern region	Case study In-depth semi-structured interviews Opportunistic sampling Form of data collection not provided Use of interpreters ?Thematic analysis but not stated	Cultural beliefs about mental illness Culture & social relationships Attitudes towards mental illness Responses to mental illness Types of support available	Big differences in beliefs about mental illness between urban and rural areas, partly influenced by Western medicine More stigmatising attitudes in urban areas Rural community relationships stronger, encouraging fostering of social support networks	**CASP score: 6/10** **<u>Strengths</u>** Recruited participants from 4 different communities; rural and urban settings Rationale for sampling approach In-depth discussion of researcher reflexivity and influence on biases/findings Addresses confirmability factors through researcher reflexivity **<u>Weaknesses</u>** Use of 'fixers' to access participants – potential sampling bias Method of data collection not provided	None declared/unclear

					Need for cultural humility when addressing mental health within a country and its culture	Method of analysis unclear No discussion of ethical committee approval or how informed consent was obtained. No respondent validation Small sample of service users No evidence of aftercare support/arrangements for participants	

Bibliography	Study aim	Inclusion criteria & demographics	Methods and analysis	Themes	Summary of main findings	Analysis/Quality	Funding sources
10. Osafo, J., Agyapong, I. and Asamoah, K.M. (2015) *"Exploring the nature of treatment regimen for mentally ill persons by neo-prophetic ministers in Ghana"*	To explore the therapeutic approaches employed in the treatment of mental illness by Neo-prophetic ministers (NPMs) or churches, how they assess the cure of patients and the implication for fostering potential collaborative work with conventional mental	N= 12 4 females 8 males Recruited from Neo-prophetic ministries (NPMs) Geographical location of participants not provided Age range not provided	Phenomenology Individual semi-structured interviews Purposive & snowball sampling Audio recording Transcribed verbatim Data saturation Interpretative phenomenological analysis (IPA)	Conceptualisation of mental health/illness Scientific vs spiritual discernment of cure Faith healers treatments available such as hope induction and prophetic deliverance Assessing cure Monitoring neo-prophetic ministry's mental	NPMs clergy view mental illness as spiritual rather than biomedical, thus require spiritual cure Two treatment approaches adopted by NPMs: hope induction and prophetic deliverance Christian groups actively involved in delivering mental healthcare services and policies can foster ways of incorporating these services into	**CASP score: 6.5/10** **<u>Strengths</u>** In-depth description of analysis process Data saturation Discusses study's limitations Rationale for each method/process adopted Internal peer review process – good trustworthiness/validity factor Specifically examines treatment regimens used by NPMs **<u>Weaknesses</u>** Potential researcher bias from snowballing sampling	None declared/Unclear

	healthcare delivery systems			health care treatment approaches	mainstream healthcare services	No evidence of ethics committee approval/application Confidentiality difficulties with sampling approach Some researcher biases described but impact not discussed. Small sample size, limits findings and applicability	

Table 3: Cochrane's risk of bias assessment of included studies (Cochrane Methods, 2018)

Author & year	**Selection Bias**	**Performance Bias**	**Detection Bias**	**Attrition Bias**	**Reporting Bias**	**Other Biases e.g. funding/Data collection bias**	**Overall RoB Judgement**
Opare-Henaku & Utsey (2017)	Medium – purposive, homogenous sampling	Medium - use of financial incentives	Low	Low -1 participant drop out due to not being Akan	Low –findings cover all areas of research aims	Medium – sampling focused on one Akan subgroup	**Medium** – extensive discussion of findings however applicability to other ethnic groups in Ghana unclear. Use of financial incentives
Arias et al., (2016)	Low – purposive, hetergenous sampling	Unclear	Unclear	Low- 1 prayer camp drop out	Low – uses verbatim quotes to explain findings	Medium – exclusion of people with mental health problems from research aims	**Low/unclear** – provided balanced argument for selected stakeholders however excluded people with mental illness and their families
Read et al., (2009)	Low – purposive, heterogeneous sampling	Unclear	Unclear	Unclear	Low – use of verbatim quotes	Medium – no sample interview questions provided to assess data collection bias	**Unclear** – some dependability factors such as duration of interviews inadequately described

Yendork et al., (2017)	Medium – snowball and convenience sampling	Unclear	Unclear	Unclear	Low – use of verbatim quotes	medium –no sample of interview questions provided	**Medium** – no researcher reflexivity/biases discussed
Age-Ngibise et al., (2010)	Low – purposive, heterogenous sampling	Unclear	Unclear	Unclear	medium -use of verbatim quotes but wording of analysis at times subjective	Medium – no sample of interview question to examine transparency	**Medium** - only used *Twi* language for interviews Poor researcher reflexivity
Read (2012)	Low – purposive, heterogenous sampling	Unclear	Unclear	Unclear	Low – use of verbatim quotes	Medium - no sample interview questions provided to assess data collection bias	**Unclear** - some dependability factors such as duration of interviews inadequately described
Kpobi & Swartz (2018)	Medium – snowball sampling, homogenous	Unclear	Unclear	Unclear	Low – use of verbatim quotes	Medium – method of data collection unavailable	**Medium** – credibility issues such as poor data saturation
Asamoah et al., (2014)	medium – purposive, homogenous sampling	Unclear	Unclear	Unclear	Low – use of verbatim quotes	Medium -Only male sample, limits	**Medium** – audibility and credibility issues with methods process
Quinn (2007)		Unclear	Unclear	Unclear	Low – use of verbatim quotes	No discussion of funding/sponsoring source	**Unclear** – some applicability factors inadequately addressed

	Medium – opportunistic sampling						
Osafo et al., (2015)	Medium – snowball sampling	Medium - Use of financial incentives	Unclear	Unclear	Low – use of verbatim quotes	No discussion of funding/sponsorship source	**Medium** - Small gender-specific sample size, limits applicability of findings. Gave participants financial incentives

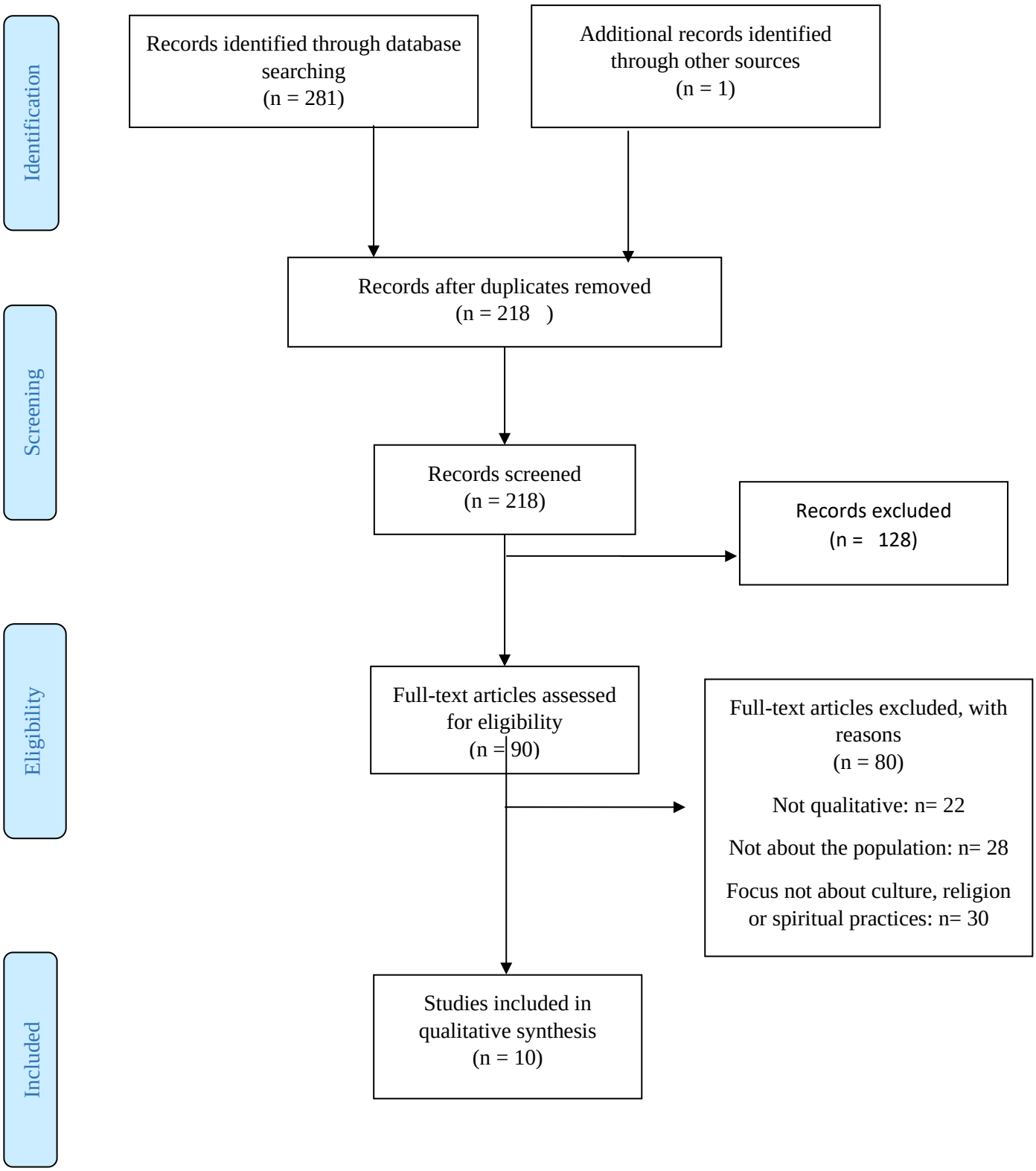

Figure 1: Prisma Flow Diagram: Adapted from Moher et al., (2009)

Chapter 4 – Outline/synthesis of study characteristics

4.1 Study selection

Figure 1 shows the steps taken to identify applicable studies for the review. A total of 281 articles were generated from searching four databases, grey literature and reference lists. Duplicates were then removed leaving N=218 studies remaining. These studies dated from January 1960 to May 2018. Subsequently, the process of inspecting remaining titles was carried out, N= 128 studies were not relevant to the research question. In total, N= 90 study abstracts were examined for eligibility. Of these, N= 26 of the abstracts were identified as possibly appropriate for inclusion and were read in full. The primary review researcher selected these and closely assessed them against the inclusion and exclusion criteria in order to make a judgement regarding eligibility of articles/studies. After this assessment was undertaken, N= 14 articles were sent to the review supervisor for secondary corroboration of study eligibility.

The final decision concerning suitability of studies to be incorporated into the review was decided through discussion between the primary reviewer and the review supervisor. 4 of the 14 full articles were examined and established as not adequately meeting the inclusion criteria. These excluded articles that did not explicitly address culture, religion and or spiritual practices in relation to mental health and construction/aetiology. One specific study (Tabi et al., 2006), appeared to be very useful however, it focused on how general health is addressed in Ghana using a combination of traditional healers and modern medicine, so this article was excluded on the basis of specificity. Other studies were excluded for not using qualitative methodologies as their approach to discussing the influence of culture, religion and spiritual practices on mental health in Ghana. Finally, articles on 10 studies that met all the inclusion criteria were read in full, and their outcomes were synthesised.

4.2 Study characteristics

Of the ten studies, four studies were undertaken in urban communities (Arias et al., 2016; Asamoah et al., 2014; Kpobi and Swartz, 2018; Yendork et al., 2017), three in rural/suburban communities (Opare-Henaku and Utsey, 2017; Read et al., 2009; Read, 2012), two cross-country locations (Quinn, 2007; Ae-Ngibise et al., 2010), and the last study does not specify location of recruitment (Osafo et al., 2015). The geographical map of Ghana shows that apart from the two cross-country studies (Quinn, 2007; Ae-Ngibise et al., 2010), the communities/settings used for the rest of the included studies were located around the central and southern belt of Ghana. This area has higher populations where researchers are likely to find diversity in ethnicity and data representation and may therefore be a reason for recruitment in this location. All studies had variable differences in study characteristics as demonstrated in Table 2. Table 2 provides a description of all analysed studies

including: the particular phenomenology being studied, study design, study aims, inclusion criteria and demographics, themes, summary of findings and quality assessment. One study was part of a larger study examining categories of healers in the Greater Accra Region and the findings from the other parts of the larger studies were in press at time of the study publication (Kpobi and Swartz, 2018). Another study forms part of a larger situation analysis study conducted by the Mental Health and Poverty Project (MHaPP) examining mental health policy, legislation and services in Ghana (Ae-Ngibise et al., 2010). Read (2012) is a follow-up case study of the ethnographic study conducted by Read et al (2009) and uses cases from the initial study to present its qualitative findings. Four studies examined Pentecostal/neo-prophetic churches belief systems about mental illness and how these influence the treatment and mental wellbeing of the congregation/pubic (Osafo et al., 2015; Asamoah et al., 2014; Yendork et al., 2017; Arias et al., 2016). One study specifically examined the Akan cultural beliefs, its influence on mental illness constructs/aetiology and how this translates into treatment of mentally ill people in Akan society (Opare-Henaku and Utsey, 2017). One study explored the impact of different cultural beliefs on society's response to mental illness in urban and rural communities (Quinn, 2007).

The sample size across studies varied. Eight studies had large sample sizes: N= 50 (Arias et al., 2016), N= 67, (Read et al., 2009; Read, 2012), N=86 (Yendork et al., 2017), N= 122 (Ae-Ngibise et al., 2010), N= 90 participants (Quinn, 2007), N= 31 (Opare-Henaku and Utsey, 2017) and N= 20 (Asamoah et al., 2014). The other two studies had smaller sample sizes; N= 12 (Osafo et al., 2015) and N= 8 (Kpobi and Swartz, 2018). Information "power" of sample size shows that Kpobi and Swartz's (2018) strategy was one of the strongest as their sample was specific and rich in information and focused on beliefs and treatment of mental disorders by traditional medicine-men in Greater Accra, Ghana.

The phenomenology, qualitative approach and data adopted in each study was different, and these varying features had to be considered to effectively and methodically appraise the findings across all 10 studies. Upon examination, it appears six studies (Osafo et al., 2015; Asamoah et al., 2014; Kpobi & Swartz, 2018; Ae-Nibise et al., 2010; Yendork et al., 2017; Opare-Henaku and Utsey, 2017) adopted an Interpretative Phenomenological Analysis (IPA). Two studies employed grounded theory approach (Arias et al., 2016; Quinn, 2007). Two studies used ethnographic research approach to examine their research questions (Read et al., 2009; Read, 2012).

Study designs were similar across all ten studies; and all ten used individual or in-depth semi-structured interview designs. Five studies also used focus group discussions (FGDs) to generate more rich data or due to individual participants being hesitant to be interviewed alone (Ae-Ngibise et al., 2010; Arias et al., 2016; Opare-Henaku and Utsey, 2017; Read et al., 2009). Read et al., 2009; Read, 2012; Yendork et a., 2017 also used participant observations as part of their fieldwork data collection.

All the studies used purposive sampling in their recruitment process. In addition, three studies used snowballing as part of their sampling strategy to obtain additional samples (Osafo et al., 2015; Yendork, et al., 2017; Kpobi and Swartz, 2018). One study used opportunistic sampling (Quinn 2007). Yendork et al. (2017) also used convenience sampling as part of their recruitment process. To address transferability of their studies, two studies went into detail about their data collection methods involving triangulation of their data (Yendork et al., 2017) and another employed data saturation (Osafo et al., 2015).

Three studies used thematic analysis as their approach for synthesising their data (Asamoah et al., 2014; Kpobi, and Swartz, 2018; Opare-Henaku and Utsey, 2017). IPA is the second most common analysis approach used (Yendork et al., 2017; Osafo et al., 2015). Other data analysis tools used included constant comparative analysis (Arias et al., 2016), framework analysis (Ae-Ngibise et al., 2010) and grounded theory (Read et al., 2009). Read (2012) used case studies approach to present data. In the last study (Quinn, 2007) it is not clear the approach adopted for data synthesis.

There was heterogeneity in the types of study designs, characteristics and focus of studies, hence, a thematic analysis was used to synthesise findings from included studies.

Chapter 5 – Findings and discussion

5.1 Ghanaian notions of mental health/illness as rooted in socio-cultural Ontology

All the included studies had a focus on conceptualisation of mental illness in the Ghanaian context. Findings showed that due the dichotomous belief systems of the country, majority of Ghanaian people, whether religious or traditional, conceptualised mental health/illness/disorders in the context of having a spiritual and a physical component. They see mental illness as a manifestation of multitudes of issues such as punishment from the Supreme Being/God due to breaking of certain laws/rules, evil spirits/demons/witchcraft, engaging in social immoral acts such as adultery, or a generational curse. Nonetheless, in Opare-Henaku and Utsey's (2017) study on Akan cultural concepts of mental illness, they highlight that notions of causality are more complex than a dichotomous explanation as the Akan concepts of causality of mental illness is intertwined with a multiplicity of factors that are "neither exclusively spiritual or non-spiritual" (Opare-Henaku and Utsey, 2017, p.516). There was a rural-urban distinction of conceptualisation and causality of mental illness, and it was ascertained that the rural areas tend to have a more spiritual basis while the urban areas are more open-minded to biomedical causes. In other studies, education, exposure to media/internet and Western ideas were found to be the influence on this distinction (Ae-Ngibise et al., 2010; Quinn, 2007; Arias et al., 2016; Asamoah et al., 2014).

Interestingly, Arias et al (2016) and Ae-Ngibise (2010) included mental health professionals in their study (as participants) and found that most mental health professionals hold personal views/beliefs of spiritual causes of mental illnesses/disorders. Words that participants used to define mental illness were found to be influenced by culture and depended on severity of the presenting symptoms. The descriptive features participants gave about mental illness/disorders were often derogatory and often focused on psychotic disorders, highlighting the limited public knowledge about different types of mental illnesses/disorders (Kpobi and Swarts, 2018; Opare-Henaku and Ustey, 2017; Yendork et al., 2017). In particular, Yendork et al (2017) found that participants were often not aware of other mental health problems such as affective disorders. This was interesting considering affective disorders are one of the highest with respect to mental health burden in LMICs (WHO, 2017). The dichotomous belief systems landscape can result in confusion/disagreement in identifying causality of mental illnesses/disorders and thereby leading to cacophony in treatment approaches (Kpobi and Swartz, 2018; Arias et al., 2016; Read at al., 2009; Read, 2012; Asamoah et al., 2014; Osafo et al., 2015).

5.2 Ghanaian sociocultural concept of self, social status and mental health

In this subtheme, most participants' definition of self or personhood was in the context of how useful one is to their community/society and is able to meet their social obligations. This collectivistic approach to self-concept is a feature of African cultures (Ma and Schoeneman, 1997). This was evident in Read et al (2009) and Read's (2012) studies in which participants adhered to psychotropic

medication and harsh treatments with the hope that it will enable them to return to social functionality thereby increasing their recognition and identity in the society/community. The writers highlighted that this was expected given that Ghana is a collectivist society, therefore people's help-seeking behaviours for mental illnesses/disorders are influenced mainly by what the majority in the society/family agree will be beneficial in restoring physical and social strength and moral responsibility for the individual while minimising danger and maintaining social cohesion. The need for social cohesion through treatment is evident in the way people with mental health problems are described – antisocial, aggressive, dangerous, unhygienic, abnormal and erratic (Read et al., 2009; Opare-Henaku and Utsey, 2017; Quinn, 2007; Read, 2012; Yendork et al., 2017). This leads to negative attitudes and stigma attached to mental health problems (Opare-Henaku and Utsey 2017, Yendork et al., 2016; Read, 2012). In essence, most Ghanaians are prepared to engage in and adhere to any mental health activity/treatment, even if it will cause them personal pain/discomfort, if it means they get better and are able to reengage in and be accepted by their communities. This is exemplified in adherence to the use of chains and shackles in most communities and faith/traditional treatment centres to keep relapsed mentally ill people under containment and reduce social disruption/discrimination and stigma (Read et al., 2009; Read, 2012; Ae-Nigibise et al., 2010; Quinn 2007; Osafo et al., 2015).

5.3 Mental health treatment provision/approaches

The research findings show that Ghanaians practice medical pluralism in their help-seeking as in line with African cultural beliefs. People with mental illness and their families are not oblivious to the availability of psychiatric services. However, traditional and/or faith healing are two of the commonly used approaches for treating mental illness/disorders and are often the first line of help-seeking (Opare-Henaku and Utsey, 2017). Traditional and faith healers such as Pentecostal/Charismatic churches and traditional medicine-men and their treatment regimens were explored by a number of researchers (Read, 2012; Asamoah et al., 2014; Osafo et al., 2015; Arias et al., 2016; Yendork et al, 2017; Ae-Ngibise et al., 2010; Kpobi and Swartz, 2018) who found that the use of prayer camps/centres/shrines as healing centres to heal people with mental illness/disorders was commonplace. Some of their treatment approaches include fasting, exorcisms, preachings/teachings of hope/invincibility and prayers/offerings to gods. Some prayer camps use chains/shackles to restrain patients, but they argue that this is often done primarily to contain the person rather than as part of the treatment process. One point from the faith healers' studies was the instilling of hope for a cure from a Supreme Being – that this helps keep the individual psychologically sane because knowing someone higher than yourself is in control can be a protective factor. It can conversely lead to delay in treatment, as one becomes stagnant with one treatment approach that may not be working (Arias et al., 2016; Ae-Ngibise et al., 2010; Kpobi and Swartz, 2018). Another running theme for the widespread use of traditional and or faith healers was the fact that they provide person-centred, psychosocial support for patients and their families in various ways that are congruent with the Ghanaian sociocultural context, thereby making

them attractive to the public (Arias et al., 2016; Ae-Ngibise et al., 2010; Kpobi and Swartz, 2018). However, for most conventional/mainstream mental health services/treatments available, participants often found them to be understaffed, inefficacious, expensive, inaccessible and heavily biomedically focused (Ae-Ngibise et al., 2010; Read et al., 2009; Read, 2012; Arias e al., 2016).

Read (2012) found that the biomedical approaches to mental health illness/treatment such as use of psychotropic medication cause unpleasant side effects that make service users and their families question the fundamental essence of medication in relation to concepts of healing/well-being. Conventional mental health treatments are often seen as short-term rather than long-term options (Read, 2012; Ae-Ngibise et al., 2010; Yendork et al., 2017). This is compounded by biomedical treatment's inability to 'cure' the person of the mental illness/disorder as demonstrated in the Read (2012) follow-up study where a participant relapsed after non-concordance with his medication.

5.4 Addressing mental health human rights issues/abuses in a sociocultural context

Human rights issues were specifically explored in three studies (Read et al., 2009; Ae-Ngibise et al., 2010; Arias et al., 2016). Read et al (2009) found that use of chains and shackles was commonplace in most traditional and faith healing centres due to poor environmental safety infrastructures, and that no formal or legal procedures/framework were in place to justify the physical restraining of patients. The researchers also found that sometimes physical restraints and beatings were used in faith/traditional healing centres as forms of deliverance, as well as punishment/discipline for engaging in socially immoral activity that God or gods frown upon. Mental health professionals expressed their deep concerns with use of physical restraints and beatings as forms of treatment/containment and this has led to scepticism for collaboration and discrediting of each other's work (Ae-Nbibise et al., 2010; Arias et al., 2016). These findings show that so far as religious and traditional beliefs continue to be part of the fabric of Ghanaian culture, and poor economic commitment from governments continue to be the trend, then the use of physical restraints will continue to be part of mental health treatment (Read et al., 2009; Quinn, 2007). As previously highlighted, with Ghana being a collectivist society means often one's human rights are often overlooked in help-seeking efforts, and this can be difficult especially when "evidence-based interventions" that have been developed in Western cultures are transported to countries such as Ghana without consulting local knowledge on what constitutes personhood, healing and well-being (Read et al., 2009; Read, 2012; Opare-Henaku and Utsey, 2017).

5.5 Financial and human resources

Financial and human resources aspects of mental healthcare is addressed by five articles that highlight that often finance plays an important part of help-seeking options available to service users and their families (Arias et al., 2016; Quinn, 2007; Read et al., 2009; Read, 2012; Ae-Ngibise et al., 2010). Read et al (2009) highlighted the harsh reality of the non-existence of social welfare system in Ghana, meaning families have to bear the financial burden of relatives with mental health problems. Arias et

al. (20160 also highlighted that faith healer centres also face financial difficulties and often rely on NGOs such as Basic Needs for material support. Most public mental health services are also underfunded, understaffed and poorly equipped for the increasing burden of mental health issues (Ae-Ngibise et al., 2010; Osafo et al., 2015; Read et al., 2009; Read, 2012).

Osafo et al (2015) addressed financial and human resources from the perspective of task-shifting – they called for the training and education about referral systems and screening programmes to faith and traditional healers in order for them to do their frontline work while minimising human rights abuse issues. There are also calls for financial commitment for mental health policy developments, training and education programmes from the government and local service developers to help improve accessibility and affordability of mental health services in communities (Read et al., 2009; Read, 2012; Ae-Ngibise et al., 2010).

5.6 Partnership working as a solution to effective holistic care

Partnership working between conventional and traditional or faith healers was explored by seven studies (Opare-Henaku and Utsey, 2017; Osafo et al., 2015; Ae-Ngibise et al.,2010; Arias et al., 2016; Asamoah et al., 2014; Read, 2012; Kpobi and Swartz, 2018). They found that patients, family members and mental health professionals have a basic interest in fostering collaboration, due to financial, environmental and human resources constraints, but there are mountains of barriers hindering this. These barriers include the differing fundamental beliefs and theories underpinning each discipline, human rights abuse issues, suspicion of each other's' treatment approaches and ineffective national policy on collaboration action plans. Differing fundamental beliefs and theories leads to misunderstanding and increased knowledge gap among mental health professionals and service users or faith/traditional healers (Arias et al., 2016). There are difficulties in collaborative efforts as some traditional and faith healers were reluctant to be subjected to clinical education, regulation and safety checks, mainly due to the complex and spiritually-based nature of their work (Ae-Ngibise et al., 2010; Kpobi and Swartz, 2018). Moreover, some faith healers feel the governmental push for provision of 'evidence-based' interventions and professionalise faith/traditional interventions can put pressure on nonconventional practitioners, making cooperation even more difficult (Asamoah et al., 2014). However, some collaboration work was evident in some prayer camps where patients were encouraged to take prescribed medication as a way to manage physical symptoms of the illness (Arias et al., 2016; Asamoah et al., 2014). Osafo et al (2015) cited an example of collaboration between the Korle Bu Teaching Hospital and Mount Horeb Prayer Camp in the Eastern Region. Consequently, collaborative approach to mental health care will nurture an environment for delivering seamless, person-centred and cost-effective holistic care that takes into account the physical, psychological, social and spiritual needs (Read, 2012; Quinn, 2007; Arias et al., 2016; Opare-Henaku and Utsey, 2017).

Table 4: Illustrative quotations reflecting findings in themes		
Themes	Participant quotations	Contributing references
5.1 Ghanaian notions of mental health/illness as rooted in sociocultural ontology 5.2 Ghanaian cultural concept of self, social status and mental health	"…it is due to witchcraft; someone who hates you can buy illness from a witch and cause an evil spirit to attack you with madness…" "There are human problems that medicine can never, never, I repeat, never solve it [sic]. Tell your professors we solve those problems by the Grace of God." "They say I'm spoilt. I'm not a human being anymore"	Kpobi & Swartz (2018, p.311) Osafo et al. (2015, p.331) Read et al (2009, p.16)
5.3 Mental health approaches/provision	"If you go to some of the spiritual healers and those kind of things, like the churches and those kind of things, the psychology of preaching to you, of telling positive things may rekindle you and bring you back to normalcy, even without medication." "He has to sacrifice to [the god] …take some eggs or schnapps and make a sacrifice to the god to banish the evil spirit causing the madness…" "*Aduro kakra, mpaebɔ kakra*- a little medicine, a litter prayer"	Ae-Ngibise et al (2010, p.561) Kpobi & Swartz (2018, p.313) Read (2012, p.450)
5.4 Addressing human rights issues/abuses in a sociocultural context	"There [at a prayer camp] they beat her severely with a belt, …. They said she should say she is a witch, but she is not a witch…" "The faith healers you know sometimes end up abusing the people in various forms….sometimes there is physical abuse, right, people are still being chained and beaten because they think there are demons in them"	Read et al (2009, p.9) Ae-Nigibise et al (2010, p.562)
5.5 Financial and human resources issues	" The most important thing is that clinic professionals are woefully inadequate. So these people [traditional and faith healers] fill the gap. A very, very big yawning gap"	Ae-Ngibise et al (2010, p.561)
5.6 Partnership working as a solution to effective holistic care	"We should work together, thus using the hospital and the prayer camps, because God created himself in many ways…There is [a] physical side to everything and there is [a] spiritual side. Let those in the prayer camos handle the spiritual aspect, [and let] the physicians handle the physical aspect."	Arias et al (2016, p.11)

Chapter 6 – Conclusions and recommendations

The influence of culture, religion and spiritual practices on mental health in Ghana was the focus of this review. A pattern in the findings of the ten reviewed studies showed that Ghanaians place great significance on both the physical and spiritual components of a person's wellbeing and are always seeking ways to harmonise these two components. It is clear from the research findings that most Ghanaians are aware of biomedical/mainstream mental health services, but they still use faith/traditional healers as part of their help-seeking behaviours. This is partly underpinned by cultural ontology and the fact that the long-term psychosocial support they receive from these healers are perceived more valuable than conventional treatments. It is also evident in the findings that although efforts are being made, active commitment is still required to make mainstream mental health services affordable and accessible to all. Findings from the review are valuable for offering information to healthcare professionals seeking to understand how culture, religion and spiritual practices influence mental health in Ghana and how this evidence can be used to promote a mentally healthy nation.

Findings of the reviewed studies also showed that belief in a Higher or Supreme Being and spiritual forces is prevalent in Ghana, and requires more research/attention. However, these beliefs also often lead to suspicion and scepticism in long-term efficacy of conventional mental health interventions/treatments (Ae-Ngibise et al., 2010, Read, 2012). This also leads to misconceptions about mental health and the negative treatment and stigma towards people with mental health problems, requiring calls for government and NGO investment in public psycho-education through the media platforms (Read et al., 2009; Read, 2012; Quinn, 2007; Asamoah et al., 2014).

In order to address barriers and foster effective collaboration between conventional mental health services/professionals and faith/traditional healers, there needs to be an expression of mutual respect, development of psycho-education, training programmes and a dialogue between the two parties (Ae-Ngibise et al., 2010; Asamoah et al., 2014). The establishment of the Ghana Traditional Medicine Practitioner's Council has been one way of the government recognising faith/traditional healers' contribution to the health service provision (Kpobi and Swartz, 2018; Ministry of Health, 2005). A call for national, regional and district policy developments is also highlighted by Asamoah et al (2014).

It is also important that future studies undertaken in Ghana and other LMICs settings consider the impact of social determinants of mental health and how they affect the overall health of a people. Promoting collaboration/partnership working between faith/traditional healers and biomedical/mainstream services in Ghana is one area that needs further research to ensure misconceptions are addressed and evidence-based interventions are culturally-appropriate. The issue of human rights abuses/issues also emerged from the findings, and requires international/national

strategies in addressing it. It calls for development of public education programmes such as positive media advertising, and professionals training. Furthermore, emphasis should be placed on developing mental health research/strategies/interventions that aim to benefit the Ghanaian people, rather than fulfil international funding bodies' objectives/purposes. To achieve effective global mental health research/strategy outcomes in Ghana, it is important to not lose sight of the fact that Ghanaian culture, like other non-Western cultures, is not worse, behind or trailing Western culture, it is just different, and mental health actions should echo this by ensuring local culture and community needs are at the forefront of all mental health promotion, prevention and intervention developments

Addressing mental health human rights issues in LMICs is one of the priorities in global mental health, and has been incorporated into WHO (2013) mental health action plan objectives for 2013-2020 to ensure member states' mental health legislations are updated and in line with regional human rights standards by 2020. One of the aims of Ghana's Mental Health Act (2012) is to ensure that the human rights and dignity of persons with mental illness/disorders are respected at every level, but the nation is still waiting for the amended version of the Act to be implemented. Action should be expedited to get this done.

Finally, the findings on human and financial resources highlighted the need for investment in community mental health services that are affordable and accessible to all (Read et al., 2009; Read, 2012; Quinn, 2007). However, from findings of Ae-Ngibise et al (2010), sometimes biomedical/conventional mental health services do not appeal to participants due to the views that their diagnosis/intervention approaches can be too focused on the physical, and the focus on psychosocial support solutions are minimal. This highlights the fact that as long as culture, religion and spiritual practices continue to be part of the identity of the country, the practice of medical/healing pluralism will continue to be part of the fabric of Ghana's healthcare system. Therefore, cultural, religious and spiritual beliefs/practices in Ghana must be borne in mind and taken cognisance of in the design of interventions for persons with mental health illnesses/disorders in Ghana.

Limitations of the review

One weakness of the review is that all included studies were conducted in Ghana and were restricted to English publications or those translated into English. This limited the transferability of review findings to other LMICs and HICs to determine the influence of culture, religion and spiritual practices on mental health on a global scale. Addressing these issues is particularly important as the global mental health treatment gap continues to widen, necessitating the need for greater understandings of health and wellbeing from transcultural perspectives (Kirmayer, 2012). Nonetheless, most Sub-Sarahan cultures and belief systems are often similar, therefore findings may be useful. The exclusion of non-English

studies pose potential bias as they could contain important findings pertaining to the research aims. Another weakness of the review is its focus on the influence of culture, religion, and spiritual practices on mental health/illnesses/disorders as opposed to social and or financial influences. As Maselko et al (2018) highlighted in their study, socioeconomic status, debt and food security are very important factors that influence mental health/illness/disorders and subsequent help-seeking behaviours, particularly in LMICs. This is also recognised and addressed by WHO in their findings on the social determinants of mental health (WHO, 2014a).

Another drawback of the review is that the included studies that examined religious practices all focused on Christian/Pentecostal churches or prayer camps (Arias et al., 2016; Yendork et al., 2017; Read et al., 2009; Osafo et al., 2015; Asamoah et al., 2014) and this posed bias as other religions were not explored in their studies. Evidence regarding inclusivity of other religions was found in Ae-Ngibise at al's (2010) study, however their CASP quality score was the lowest, limiting the study's credibility and applicability across the country.

All included studies excluded children below age 10 years as participants as it was felt exploring participants' understanding and experience of the influence of culture, religion and spiritual practices calls for a level of knowledge and experience that are not afforded to children. Moreover, conducting such a research on children will raise some research ethics and child protection issues (Bell, 2008).

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List of Appendices

Appendix 1: Quality assessment of included studies

For the purpose of this review, the **C**ritical **A**ppraisal **S**kills **P**rogramme (CASP) checklist was used to undertake quality assessment to establish credibility, transferability, dependability and confirmability factors (Hannes, 2011; CASP, 2018). There is debate on whether quality assessment of qualitative studies should be undertaken prior to or post synthesis of findings due to aspects such as diversity in study methods and depth of reporting. This decision is influenced by the research question and whether the researchers have, after piloting their method, determined what a poor quality study can or cannot contribute to overall findings (Centre for Reviews and Dissemination, 2009). Due to the review being an informing review, this stage was undertaken after data synthesis.

As was anticipated for qualitative studies, the overall quality of all ten studies varied. CASP scores were used to qualify each study's level of quality using a ranking system developed by Butler et al (2016). Five papers (Opare-Henaku and Utsey, 2017; Arias et al., 2016; Read et al., 2009; Read, 2012; Yendork et al., 2017) were ranked as moderate-quality scores (between 7.5 – 9). In these studies, there is good level of audit trail of documentation and procedural rigour being addressed. Four studies ranked as low-quality scores (Kpobi & Swartz, 2018; Asamoah et al., 2014; Osafo et al., 2015; Ae-Ngibise et al., 2010). The remaining one study (Quinn, 2007) received ranking as 'exclude', however it was not excluded as it was deemed that the study could hold potentially relevant rich data that could contribute to the data analysis and meta-synthesis.

A strength of majority of the studies is that they gave good contextual/theoretical discussions, scope and purpose of their research/aims. However, six studies explicitly described the specific qualitative study design and subsequent data analysis approach utilised: Phenomenology (Yendork et al., 2017; Osafo et al., 2015), Grounded theory (Arias et al., 2016;), Ethnography (Read et al., 2009), Follow-up ethnographic case study (Read, 2012); and Case study (Quinn, 2007). Three of the remaining four studies appeared to have adopted a phenomenological approach to their study design as they explore the cultural beliefs that underpin constructs of mental health aetiology and the treatment of same, although they do not make this clear in their methods (Opare-Henaku and Utsey, 2017; Kpobi and Swartz, 2018; Asamoah et al., 2014). Though this is unclear, the last study appears to have also used grounded theory to underpin its study design, as the study sought to unearth the reasons behind the prevalent use of traditional healers in mental health in Ghana (Ae-Ngibise, 2010).

All the studies had the strength of clearly stating and presenting their primary and secondary aims. Five studies looked at how the discussion and exploration of their research question can enhance fostering a

collaborative environment for conventional mental health services to work in partnership with faith/traditional healers (Read, 2012; Ae-Ngibise, 2010; Arias et al., 2016; Asamoa et al., 2014; Osafo et al., 2015). Two studies focused on two chosen ethnic groups to inform the audience on how their cultural beliefs inform constructs and treatment of mental health problems (Opare-Henaku and Utsey, 2017; Kpobi and Swartz, 2018).

Five studies (Read et al., 2009; Opare-Henaku & Utsey, 2017; Yendork et al., 2017; Kpobi & Swartz, 2018; Asamoah et al., 2014) thoroughly described participant demographics such as age range, occupation, gender profile, geographical location of participants and provision of contextual background information This helps strengthen the transferability and reliability of research methods and findings as it increases the chances of other researchers being able to replicate the methodology in other settings (Hannes, 2011). The remaining studies addressed thick description of samples to varying degrees. For example, Arias et al (2016) provides the job description of all participants but no discussion of gender profile or age range, which may have had an influence on participant responses or views on research questions/interviews.

Sampling strategies across studies had impact on assessing the transferability of findings. All studies used either purposive, snowballing or nonprobability sampling approaches. Seven studies used purposive sampling (Arias et al., 2016; Read et al., 2009; Read, 2012; Yendork et al., 2017; Ae-Nigibise et al., 2010; Asamoah et all., 2014; Osafo et al., 2015). One study used convenience sampling as part of its sampling strategy (Arias et al., 2016). This is the most common sampling strategy in most qualitative studies partly due to easy access and availability of sample. However, it is limited in applicability of findings to other contexts/settings. Two studies used snowball sampling (Kpobi and Swartz, 2018; Osafo et al., 2015), however only Osafo et al (2015) gave a rationale underpinning this choice. This sampling strategy has advantages of being cost-effective and improving study's credibility as participants are involved in the research process. However, it also runs the risk of researcher and sampling biases as findings cannot be used as representative of the particular population. However, as noted by Osafo et al (2015) this sampling approach is often the only way to gain access to certain populations in society. One study used opportunistic sampling strategy (Quinn, 2007) and the researcher gave the rationale, strengths and weaknesses of using this strategy. This strategy has poor external validity as samples cannot be used as representative of the population. 1 study used all three approaches to recruit participants (Yendork et al., 2017). In one study it was unclear what sampling strategy was utilised (Opare-Henaku and Utsey (2017), affecting the trustworthiness of the methods process.

To increase their study's credibility and audibility, two studies (Read et al., 2009; Yendork et al., 2017) engaged in data triangulation by employing semi-structured interviews, FGDs, observations and participation for their data collection. To ensure reliability of the research methods process, seven

studies reported on the instruments used to collect data, e.g. digital, audio recordings or handwritten notes, but three studies did not report this (Ae-Ngibise et al.,2010; Kpobi and Swartz, 2018; Quinn, 2007), affecting trustworthiness.

A strength of nine studies was, depending on geographical location of the study, the variety in choices of language used for interviews; English, Ga, Twi, Akuapim Twi or Fanti. Interviews were also transcribed verbatim afterwards. This processes helped with addressing dependability issues or audit trail of included studies. However, the last study (Ae-Ngibise et al., 2010) lacked this strength in that interviews were conducted in Twi in the 5/10 regions in Ghana that participants were recruited from. The researchers do not specify if the chosen regions are predominantly Twi language speaking regions (which will explain the use of Twi) or not or if interpreters were used in regions where Twi is not the common language spoken. Although Twi is one of the most common languages in Ghana, there are over 250 different other languages, which means conducting interviews only in Twi raises questions about researcher sensitivity, trustworthiness of the research process and dependability of findings. The primary researcher is Ghanaian-born, and therefore was able to identify this issue, however, omitting this important aspect of the methods process can mislead other readers/researchers who may not possess this background information.

Qualitative research studies are iterative by nature as they evolve and self-correct through the process from research design, implementation through to analysis to ensure there is correspondence with the research question, research paradigm and analysis (Thomas and Harden, 2008). Therefore, question 6 of the CASP checklist was used to assess potential biases with the included studies and how researchers addressed these biases. This was incorporated into the risk of bias tool (see table 3). It was noted only two studies (Opare-Henaku and Utsey, 2017; Osafo et al., 2015) declared giving financial incentives to participants as a thank you gesture. This could have led to participation bias and subsequently influenced the no reporting of attrition in both studies. A study conducted in Zimbabwe by Mduluza et al (2013) on study participant incentives, compensation and reimbursement found that study participants expected a reward of reasonable value for their participation. They go on to highlight that due to the lack of power balance in resource constrained countries such as Zimbabwe, often research participants can be exploited and may not see/benefit from their participation in a particular study. Therefore, sometimes financial incentives are a way of participants gaining some benefit from research participation. As Head (2009) points out, declaring financial incentives is an integral part of ethical rigour and accounting for it in the research protocol/methods process helps improve the transparency and credibility of the study.

To address ethical conduct, all studies ensured confidentiality, and anonymity and privacy was maintained throughout the methods, analysis and findings by removing personal details/information of

participants. Also, to address ethical rigour, participants' consent is evident in seven studies, although the degree to which detailed processes were taken to obtain this varied (Read et al., 2009; Read, 2012; Kpobi and Swartz, 2018; Ae-Ngibise et al., 2010; Opare-Henaku & Utsey, 2017; Yendork et al., 2017; Arias et al., 2016). Of the seven studies, Read et al (2009) gave the most thorough description of the processes by which consent was obtained by describing the language choice (English/Twi), written and/or verbal information depending on the literacy level of participants, participants given opportunity to ask questions regarding the research, and permission sought prior to participation. This is in sharp contrast to Yendork et al's (2017) approach in which "*informed consent was sought from leaders of the participating churches and from participants"... and…"Interviews were conducted in English or Twi depending on which language the participants were comfortable with"* (Yendork et al., 2017, p.987*).* They do not describe the steps taken or the communication medium used to obtain this informed consent. Moreover, the use of two language options for interviews suggests different levels of literacy competency amongst the participants. Therefore, the researchers not reflecting on this in their consent obtainment process affects their reflexivity, credibility and integrity of the research methodology, since autonomy and informed consent are integral parts of conducting rigorous qualitative research studies (Sanjari et al., 2014). This vague description of consent process is also evident in Arias et al (2016) who sought "verbal informed consent" (Arias et al., 2016, p.3) from all participants without a justification for this approach.

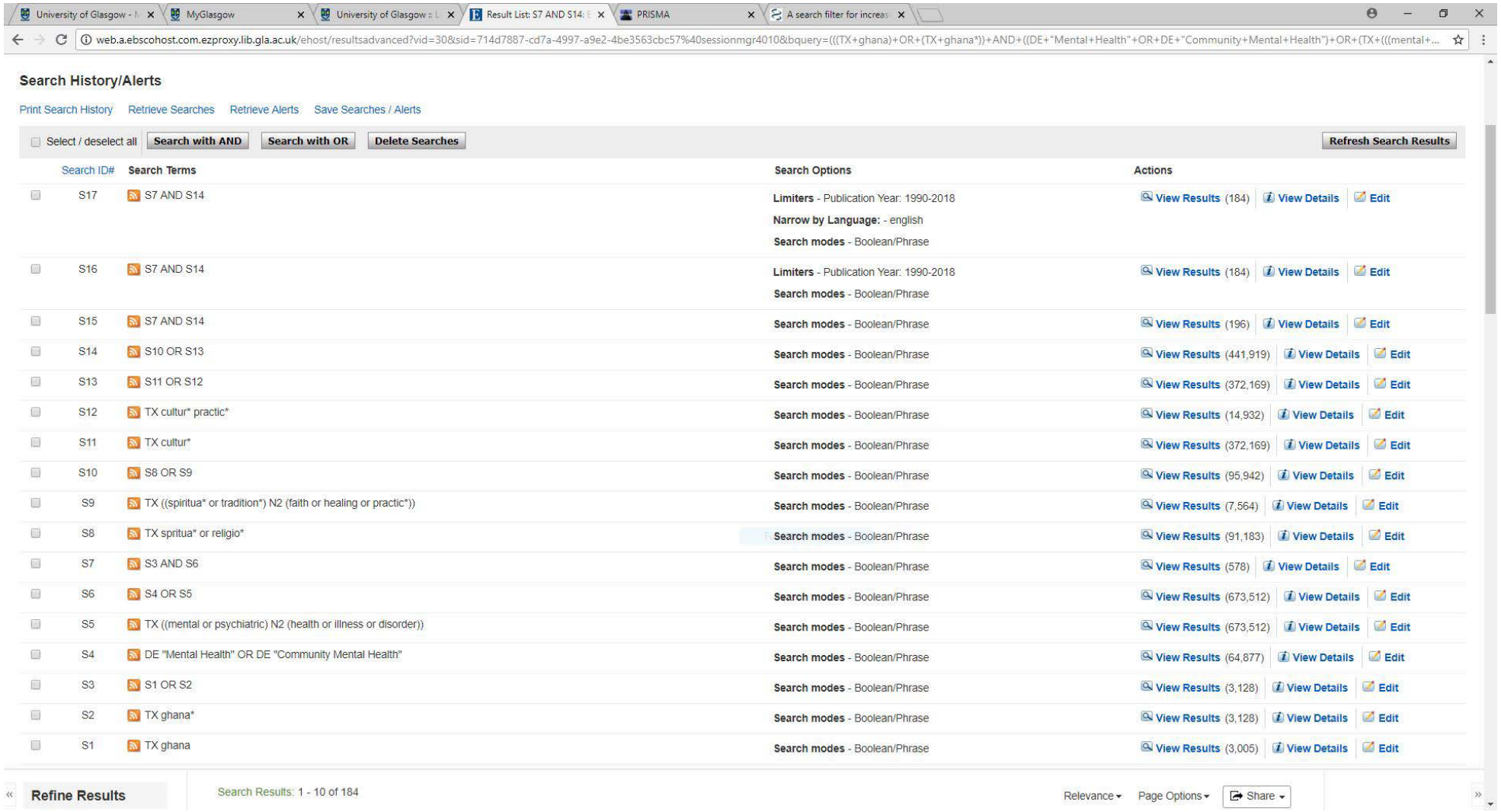
Ethical approval was obtained for the studies reviewed in this dissertation and how this approval was obtained is clearly described, apart from three studies that did not make this clear (Quinn, 2007; Asamoah et al., 2014; Osafo et al., 2015). Four studies sought ethical approval outside Ghana (Arias et al., 2016; Read et al., 2009; Read, 2012; Opare-Henaku and Utsey, 2017). It is noteworthy that the lead researcher in Opare-Henaku and Utsey's (2017) study was based at the University of Ghana at the time of the research but sought ethical approval for the studies at the Virginia Commonwealth University Institutional Review Board. There was no discussion or explanation for this, impacting on researcher reflexivity factors. Three studies sought ethical approval in Ghana (Kpobi and Swartz, 2018; Yendork et al., 2017; Ae-Ngibise, 2010). Ae-Ngibise et al (2010) sought ethics approval from three different sources; Ghana Health Service, University of Cape and The Kintampo Health Research Centre, to reflect the different origins of the researchers and the collaborative nature of the initial situation analysis that was being undertaken. This is a positive aspect of the research and enhances sensitivity to ethical concerns, because as pointed out by Chu et al., (2014) most economically affluent researchers/institutions who conduct research in LMICs tend to seek ethical approval from their own institutions of origin that do not often represent the interest of the country where the research is being undertaken. Although it contained ethical consideration issues, Quinn (2007) demonstrated good researcher reflexivity throughout his methodology, thereby improving the consistency and truth value of the studies. He reflected on the researcher/participant relationship through sample recruitment

processes, research methodology, interviewing process, use of type of language and how being a white male can directly or indirectly have an influence on the participants' responses during the research.

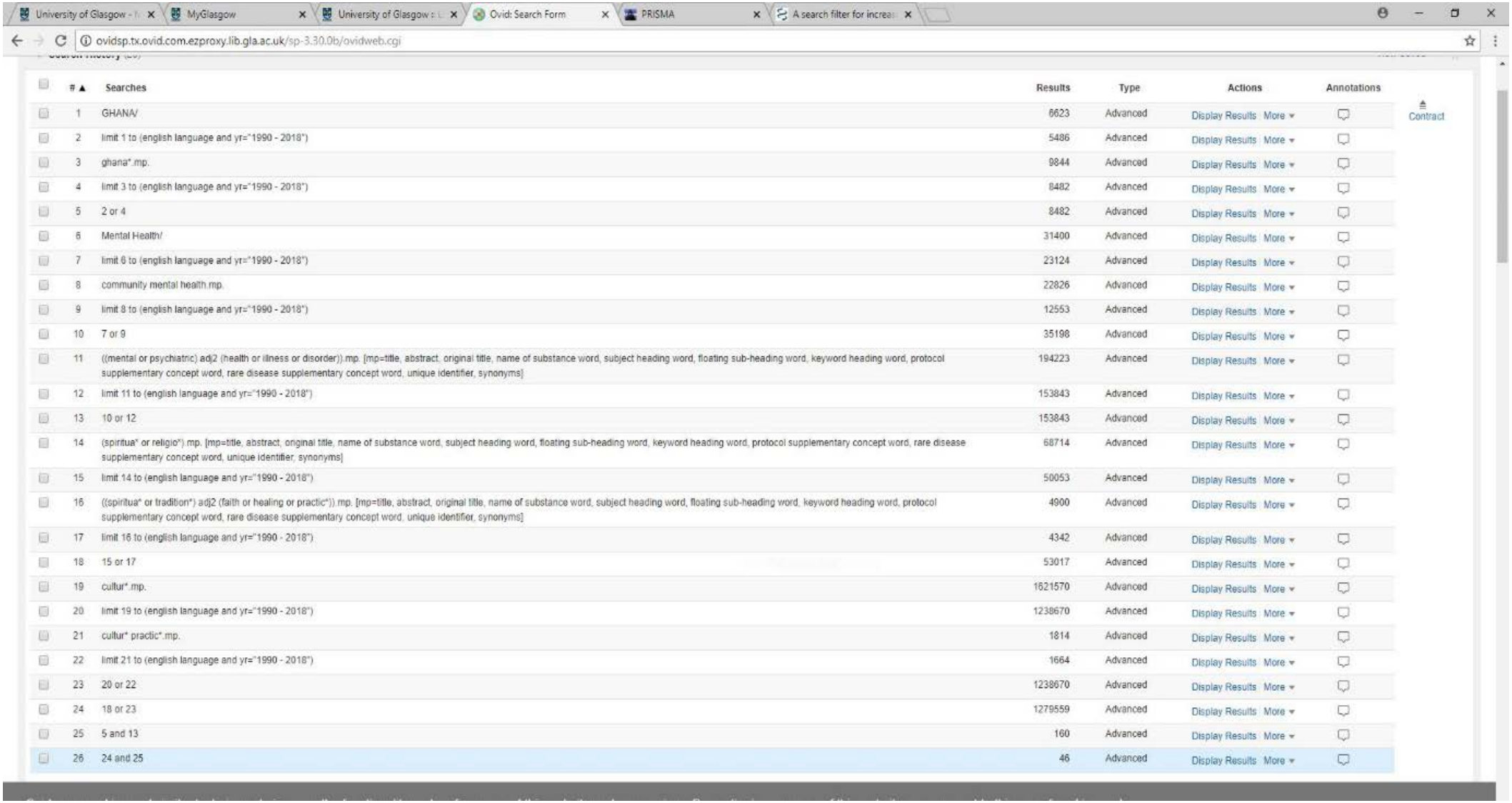
One drawback of included studies was that only one study (Yendork et al., 2017) talked about member checking also known as informant feedback, whereby participants are approached for feedback on transcribed data or study findings. Addressing this aspect influences the trustworthiness of the research methods and subsequently the overall credibility of the study. Another drawback of all the studies is that apart from Read et al (2009), there was little evidence in the remaining studies about emotional or practical support mechanisms provided or available to the participants after participation. This is an important aspect of evaluating researcher sensitivity and the study's dependability. As highlighted by Kendall & Halliday (2014) qualitative research methods involve the inevitable interaction between researcher and participants for discussions of issues that are personal and sometimes sensitive, therefore this can elicit emotional strain and or cause researcher/participants boundaries to be overstepped.

***Appendix 2**: Screenshots of keywords search used in PsychINFO, OvidSP MEDLINE, Web of Science Core Collection and CINHAL*

PsychINFO:

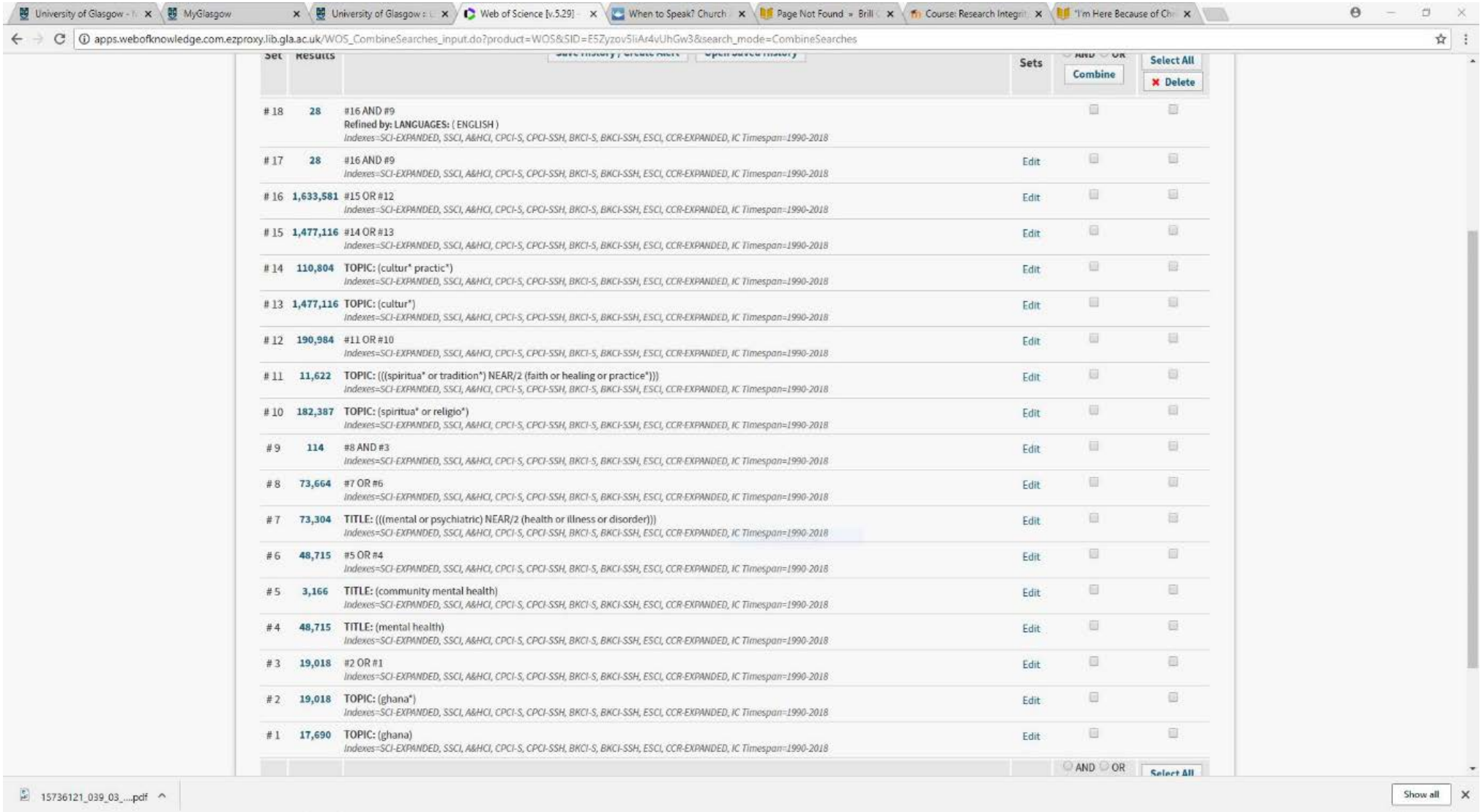


OvidSP MEDLINE:



# ▲	Searches	Results	Type	Actions	Annotations
1	GHANA/	6623	Advanced	Display Results More	
2	limit 1 to (english language and yr="1990 - 2018")	5486	Advanced	Display Results More	
3	ghana*.mp.	9844	Advanced	Display Results More	
4	limit 3 to (english language and yr="1990 - 2018")	8482	Advanced	Display Results More	
5	2 or 4	8482	Advanced	Display Results More	
6	Mental Health/	31400	Advanced	Display Results More	
7	limit 6 to (english language and yr="1990 - 2018")	23124	Advanced	Display Results More	
8	community mental health.mp.	22826	Advanced	Display Results More	
9	limit 8 to (english language and yr="1990 - 2018")	12553	Advanced	Display Results More	
10	7 or 9	35198	Advanced	Display Results More	
11	((mental or psychiatric) adj2 (health or illness or disorder)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	194223	Advanced	Display Results More	
12	limit 11 to (english language and yr="1990 - 2018")	153843	Advanced	Display Results More	
13	10 or 12	153843	Advanced	Display Results More	
14	(spiritua* or religio*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	68714	Advanced	Display Results More	
15	limit 14 to (english language and yr="1990 - 2018")	50053	Advanced	Display Results More	
16	((spiritua* or tradition*) adj2 (faith or healing or practic*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	4900	Advanced	Display Results More	
17	limit 16 to (english language and yr="1990 - 2018")	4342	Advanced	Display Results More	
18	15 or 17	53017	Advanced	Display Results More	
19	cultur*.mp.	1621570	Advanced	Display Results More	
20	limit 19 to (english language and yr="1990 - 2018")	1238670	Advanced	Display Results More	
21	cultur* practic*.mp.	1814	Advanced	Display Results More	
22	limit 21 to (english language and yr="1990 - 2018")	1664	Advanced	Display Results More	
23	20 or 22	1238670	Advanced	Display Results More	
24	18 or 23	1279559	Advanced	Display Results More	
25	5 and 13	160	Advanced	Display Results More	
26	24 and 25	46	Advanced	Display Results More	

Web of Science Core Collection:



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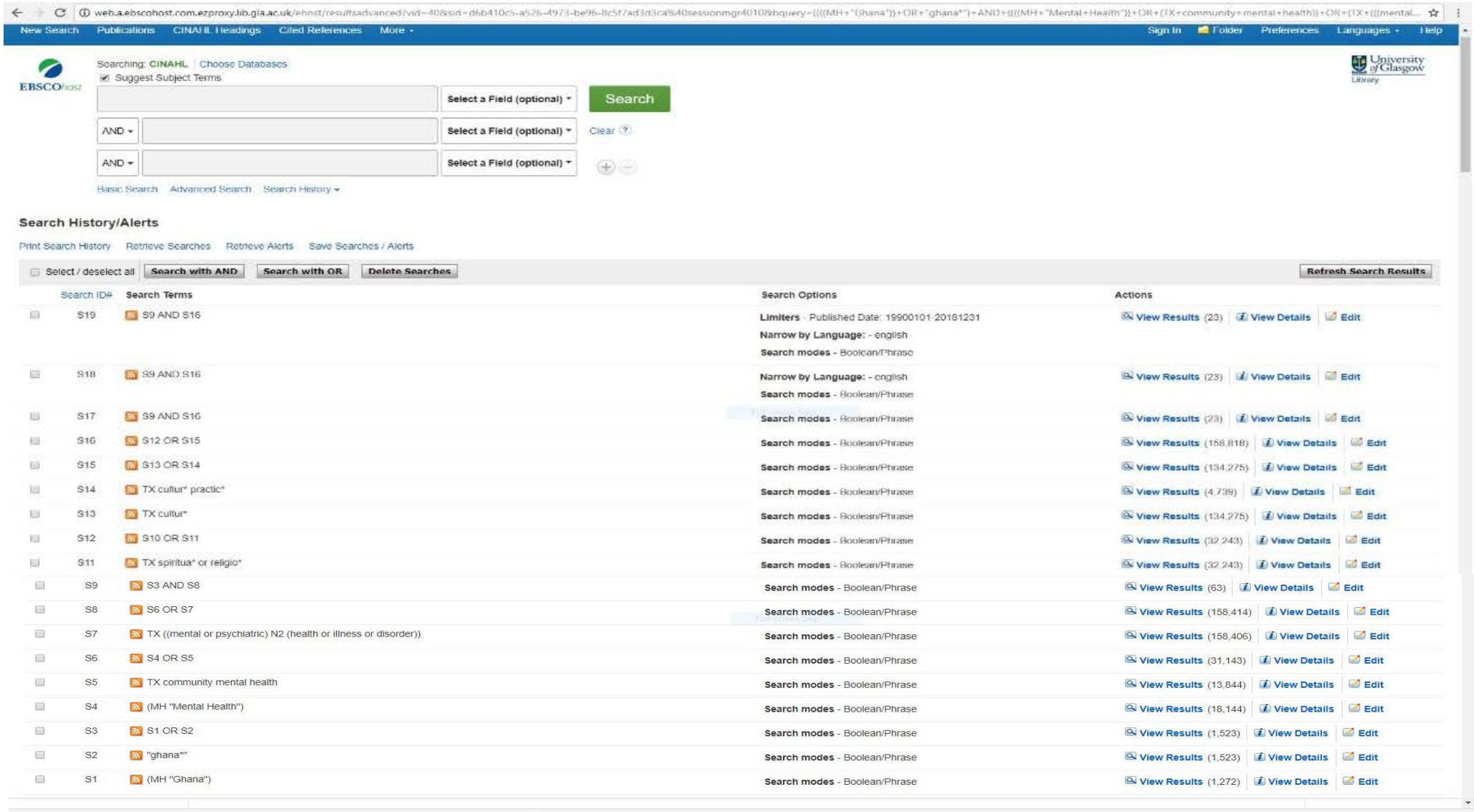
web.a.ebscohost.com.ezproxy.lib.gla.ac.uk/ehost/resultsadvanced?vid=40&sid=d6b410c5-a526-4973-be96-8c5f7ad3d3ca%40sessionmgr4010&bquery=((((MH+"Ghana"))+OR+"ghana*")+AND+((((MH+"Mental+Health"))+OR+(TX+community+mental+health))+OR+(TX+(((mental...
New Search
Publications
CINAHL Headings
Cited References
More
Sign In
Folder
Preferences
Languages
Help
EBSCOhost
Searching: CINAHL
Choose Databases
Suggest Subject Terms
Select a Field (optional)
Search
AND
Clear
Basic Search
Advanced Search
Search History
University of Glasgow Library
Search History/Alerts
Print Search History
Retrieve Searches
Retrieve Alerts
Save Searches / Alerts
Select / deselect all
Search with AND
Search with OR
Delete Searches
Refresh Search Results
Search ID#
Search Terms
Search Options
Actions
S19 S9 AND S16 Limiters - Published Date: 19900101-20181231 Narrow by Language: - english Search modes - Boolean/Phrase View Results (23) View Details Edit
S18 S9 AND S16 Narrow by Language: - english Search modes - Boolean/Phrase View Results (23) View Details Edit
S17 S9 AND S16 Search modes - Boolean/Phrase View Results (23) View Details Edit
S16 S12 OR S15 Search modes - Boolean/Phrase View Results (158,818) View Details Edit
S15 S13 OR S14 Search modes - Boolean/Phrase View Results (134,275) View Details Edit
S14 TX cultur* practic* Search modes - Boolean/Phrase View Results (4,739) View Details Edit
S13 TX cultur* Search modes - Boolean/Phrase View Results (134,275) View Details Edit
S12 S10 OR S11 Search modes - Boolean/Phrase View Results (32,243) View Details Edit
S11 TX spiritua* or religio* Search modes - Boolean/Phrase View Results (32,243) View Details Edit
S9 S3 AND S8 Search modes - Boolean/Phrase View Results (63) View Details Edit
S8 S6 OR S7 Search modes - Boolean/Phrase View Results (158,414) View Details Edit
S7 TX ((mental or psychiatric) N2 (health or illness or disorder)) Search modes - Boolean/Phrase View Results (158,406) View Details Edit
S6 S4 OR S5 Search modes - Boolean/Phrase View Results (31,143) View Details Edit
S5 TX community mental health Search modes - Boolean/Phrase View Results (13,844) View Details Edit
S4 (MH "Mental Health") Search modes - Boolean/Phrase View Results (18,144) View Details Edit
S3 S1 OR S2 Search modes - Boolean/Phrase View Results (1,523) View Details Edit
S2 "ghana*" Search modes - Boolean/Phrase View Results (1,523) View Details Edit
S1 (MH "Ghana") Search modes - Boolean/Phrase View Results (1,272) View Details Edit

Appendix 3*: *Data extraction and coding process taken from Butler et al (2016)

Stage 1	**Coding text: free line by line coding of the findings from the primary studies will occur. Data will be examined for meaning and content during the coding. The codes will then be entered into a code book. This process will allow the translation of codes and concepts between studies.**
Stage 2	Developing descriptive themes: the codes will then be examined and analysed for their meaning, and reorganized into related categories. Each category will be analysed for its properties
Stage 3	Generating analytical themes: each category will then be examined and compared to other categories, specifically looking for similarities and differences. Similar categories will be merged into higher level constructs and then themes, going beyond the findings of the original studies into a high order abstraction of the phenomena.

Example:

Line by Line Coding:

[1]A common theme that emerged from the data was the idea that mental illness is mostly a retributive and or a spiritual illness. Mental illness is described as a retributive illness because it is believed to be a punishment for acts of commission or omission. The [2]punishment may come from the Supreme Being (*Nyame*), an oracle, a witch or Satan (*Ɔbonsam*), demons or evil spirits (*ahonhomɔne*). It was believed that [3]mental illness can be passes on from one generation to another if there is a curse in the family. The use of cursing is explained by these two participants:

[1] cultural conceptualisation of mental illness

[1]spirituality and mental health

[2] Supreme Being and other spiritual beings that govern social moral compass

[2] repercussions of social immorality

[3] generational impact issues

[4] A curse result in mental illness… if you steal someone's belongings he can invoke the spirits to curse you by saying that whoever stole from him should become mentally ill before he dies. (Female, 56 years old)

[4] power of spiritual curses

(Excerpt taken from Opare-Henaku and Ustey, 2017, p.512)

Appendix 4: Instructions for authors/Journal Submission

Journal: International Journal of Culture and Mental Health

Journal Type: An international, peer-reviewed journal publishing high-quality, original research on cross-cultural issues and mental health for healthcare professionals.

Submission Checklist:

- One author identified as the corresponding author with
- email address and ORCiDs
- social media handles (Facebook, Twitter or LinkedIn).

Manuscript:

- Your paper should be compiled in the following order: title page; abstract; keywords; main text introduction, materials and methods, results, discussion; acknowledgments; declaration of interest statement; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figures; figure captions (as a list).
- Word Limit including key words: should not exceed 4000 words for an empirical article, 6000 words for a review, or 5000 words for a theoretical article, excluding tables, references, captions, footnotes and endnotes.
- Papers may be submitted in Word format.
- Graphical or video abstract (optional).
- Figures and tables should be high quality

- Figures should be saved separately from the text.

Other considerations:

- Ensure approved layout guideline and formatting templates are used
- Manuscript is spell-checked and grammar checked including appropriate punctuation
- All references on Reference List are accounted for in the text
- Appropriate declarations of interest and funding details have been made
- Ensure necessary permission is obtained to reuse third-party material including
- Referee suggestions and contact details provided, based on journal specifications

Appendix 5: Review protocol	
Review title *Review question*	A qualitative systematic review and meta-synthesis of the influence of culture, religion and spiritual practices on mental health/disorders in Ghana. How does culture, religion and or spiritual practices influence mental health/disorders in Ghana?
Anticipated review start date *Anticipated review completion date*	
Primary reviewer	*(Student)*
Review supervisor	
Methods	*Databases*: OvidSP Medline, PsycINFO, Web of Science Core Collection, Cinahl. *Publication period*: January 1990- May 2018 Language: English or translated English *Key words:* Ghana, Mental health/disorders/illness, spiritual, practices/spirituality, traditional faith/healing, religion/religious practices, religious beliefs, Culture, cultural beliefs/practices *Search dates:* 04/06/18 - 10/06/18 *Inclusion Criteria:* Qualitative research studies Studies conducted on Ghanaian population in Ghana Participants job descriptions evident, if not age range:10 years or above Studies conducted between January 1990 – May 2018 Studies meeting the ICD-10 (1996) definition of mental and behavioural disorders Studies meeting the WHO (2014) definition of mental health Studies examining culture, religion and or spirituality in Ghana
Primary outcome(s) *Secondary outcome(s)*	Culture, religion and or spiritual practices have a positive influence on mental health/disorders in Ghana. The ositive influence of culture, religion and or spiritual practices on mental health/disorders helps minimise discrimination and reduce the treatment gap of mental health disorders/problems in Ghana.

Data extraction and synthesis	Primary researcher will undertake search of databases/sources and select studies according to the inclusion and exclusion criteria. Review Supervisor will assess the included studies to ensure they meet inclusion/exclusion criteria and any discrepancies will be discussed. Data extraction tool developed and trialled by primary reviewer. Data to be extracted: bibliography, study aims, inclusion criteria and demographics, study methods and analysis, themes, summary of main findings, ethical considerations, funding sources, and quality assessment using CASP (2018) checklist will be undertaken. Data synthesis: Thematic analysis and meta-synthesis as outlined by Thomas and Harden (2008) *Risk of bias (quality) assessment:* The Cochrane's risk of bias tool (Cochrane, 2018)
Funding sources/sponsors/ conflict of interest	None
Registering the protocol	Review protocol registered with PROSPERO