Exploring the perspectives of health service providers on mental health policy and interventions for school children in the Western Cape, South Africa

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Preamble

ABSTRACT

Background: Mental health is recognised as a critical public health challenge globally, yet child and adolescent mental health receive low priority, particularly in low- and middle-income countries. Children and adolescents spend a significant proportion of their lives in school, suggesting that educational settings are potentially important environments where child and adolescent mental health (CAMH) can be strengthened to improve early identification and treatment. This study explored the perspectives of key service providers on needs, barriers and facilitators of child and adolescent mental health services (CAMHS) in schools in the Western Cape province of South Africa.

Methods: This study employed an exploratory qualitative approach. In-depth individual interviews were conducted by one of the authors (SM), and the first author (KM) conducted a thematic analysis on the interview data.

Results: There were nine interviewees selected who were diverse health service providers involved in child and adolescent health which included school doctors, school nurses, psychiatrists, occupational therapist, clinical nurse and mental health nurse. Thematic findings were grouped under: a) perceived needs, b) barriers and c) facilitators. The need to improve intersectoral collaboration, following a referral pathway, a strong multidisciplinary team (MDT) and integration of services were all identified important in the delivery of CAMHS. The neglect of CAMHS in both education and health sectors and limited resources were identified as barriers. Facilitators included intersectoral collaboration, task shifting from nurses and doctors to community health workers, and committed health workers.

Conclusion: CAMHS receives very low priority in comparison to other health issues such as HIV/TB in South Africa. There is an urgent need to address CAMHS in South Africa, and the school setting is an important site of intervention. Intersectoral collaboration, task-shifting, continuous training of teachers and health professionals are potential strategies that could be used to strengthen access to CAMHS in education sector and have integrated services in the Western Cape Province.

Keywords: child, adolescent, mental health services, experiences, perceptions, schools, health policy, Cape Town, South Africa

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Plagiarism declaration

I, Khusela Mgoqi, hereby declare that the work on which this dissertation/thesis is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university.

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Dissertation Contents

Preamble

Part A: Dissertation Protocol

Part B: Journal Article Manuscript

Part C: Appendices

Abbreviations

CAMH	**Child and Adolescent Mental Health**
CAMHS	**Child and Adolescent Mental Health Services**
CHC	**Community Health Care**
DBE	**Department of Basic Education**
DOH	**Department of Health**
DCAP	**Division of Child and Adolescent Psychiatry**
DSD	**Department of Social Development**
FGD	**Focus Group Discussions**
HICs	**High Income Countries**
LMICs	**Low and Middle Income-Countries**
NCDs	**Non-Communicable Diseases**
NDBE	**National Department of Basic Education**
NDOH	**National Department of Health**
NGO	**Non-Governmental Organization**
NPO	**Non-Profit Organization**
PDOH	**Provincial Department of Health**
PHC	**Primary Health Care**
SDGs	**Sustainable Development Goals**
UN	**United Nations**
WHO	**World Health Organization**
WCDOH	**Western Cape Department of Health**

Part A: Dissertation Protocol

Exploring the perspectives of health service providers on mental health policy and interventions for school children in the Western Cape, South Africa.

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MPH: Health Systems

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PART A: PROTOCOL

TITLE: Exploring the perspectives of health service providers on mental health policy and interventions for school children in the Western Cape, South Africa.

Introduction

'There is no health without mental health'. This statement was implied by the World Health Organization (WHO) to ensure that the world understands the importance of considering mental health as an integral part of health (Patel, 2005). Mental well-being is considered to be essential to good quality of life (WHO, 2012). According to WHO (2014), mental health is a state of well-being where an individual is able to realize their capability, can manage with the common stresses of life and work effectively and successfully contribute to their community. Mental health forms part of the United Nations Sustainable Development Goals (UN SDGs) 2030, and is explicitly mentioned under goal 3 of "good health and wellbeing", where the need to strengthen the prevention, promotion and treatment of mental illness is emphasized (Jenkins, 2018). Mental health was also acknowledged at the 71st World Health Assembly 2018 special session as an important Non-Communicable Disease (NCD) requiring urgent attention, including prevention and control. It is essential that mental health be incorporated into health policy and practice to address the significant gap of mental health interventions, as this will contribute to improving global health (Tomlinson et al, 2016).

Global response to mental health

Mental health needs have grown to represent a significant proportion of the global burden of disease and are considered to be a greater burden in children and adolescents, in both High Income Countries (HICs) and Lower Middle-Income Countries (LMICs) (Mokitimi, Schneider and de Vries, 2019). According to the WHO (2016), globally about 10-20% of children and adolescents face mental illnesses. Patel et al (2007) reports that one in four or five young people in HICs suffer from at least one of the mental illnesses in a year, whilst Draper et al (2009) asserts that inadequate information on mental health from LMICs is one of the major contributions to its low priority as a public health issue. One of the barriers included the low priority given to mental health on the global burden of disease on the public health agenda. This is evident by the slow progress of mental health services globally, with these services being under-resourced and unevenly distributed (Draper et al, 2009).

Mental health in LMICs, including South Africa

Mental health in general

Despite the recognition of mental health as a critical public health issue globally, it is not given the urgency it requires in policy agendas in LMICs and in Africa more specifically (Draper et al, 2009;

Jacob et al, 2007). According to the WHO (2005) only 50% of African countries have mental health policies and laws in place, with many out-of-date and not adequately implemented.

Mental health and the related mental health services face many limitations. A study conducted by Saraceno et al (2007) explored the limits and barriers to the development of Child and Adolescent Mental Health Services (CAMHS). Saraceno used a qualitative survey with international leaders, in order to review barriers to mental health service development. The international leaders were from LMICs which included Sri Lanka, Brazil and Chile amongst others, and were from various backgrounds such as civil society specialists on mental health, civil society leaders with no specific mental health training, and senior government officials on mental health, public health leaders, professors and international consultants on mental health services. These barriers were found to have implications on funding, challenges in implementing mental health services in primary care settings in LMICs and inadequate number of workers trained in mental health care (Saraceno et al, 2007). The slow progress is influenced by a limited number of trained health professionals in mental health and inadequate public mental health leadership (Saraceno et al, 2007). Furthermore, they found that leaders and advocates in mental health had different perceptions of mental illnesses and this might be related to the scarcity of trained leaders in mental health. LMICs have to contend with a high burden of disease in general, further compounded by a high burden of mental illness and this is not made easy given the lack of human resources (Kleintjes et al, 2010). Bird et al (2010) found that in African countries mental health services were very poor, under-resourced and unevenly distributed within and amongst countries. These factors, namely poor priority of mental health in the policy agenda, inadequate human and financial resources, need to be addressed when advocating for mental health services in South Africa and internationally. One of the key contributors to the low priority of mental health is the relative lack of information about mental health and the resultant absence of, or inadequately developed policies. The poor prioritization of mental health in LMICs including African LMICs impact on the process of developing mental health policies, the policy content and ultimately the implementation of the policies.

Child and adolescent mental health (CAMH)

The situation is even worse for child and adolescent mental health services (CAMHS). Despite epidemiological studies reporting the prevalence of mental illnesses being one in five children and adolescents globally (Flisher et al, 2012), the needs of older children and adolescents are largely unmet.

In a study by Lund et al (2010), CAMHS reportedly receive inadequate service coverage in LMICs. In addition to poor coverage, there is limited evidence available on the resources required for CAMHS in LMICs (Lund et al, 2010). There are other challenges similar to those of adult mental health, which include minimal evidence on CAMHS interventions, and inadequate human and financial resources

for these services (Flisher et al, 2012). These findings of inadequate and neglected CAMHS were echoed in a situational analysis of child and adolescent mental health services in Ghana, Uganda, South Africa and Zambia (Kleintjes et al, 2010). The availability of resources such as CAMH institutions, number of beds for CAMHS in general care and psychiatric hospitals were limited in all four countries. Furthermore, the number of specialists and health professionals in CAMH were scarcer than that of adult mental health in all four countries. The situational analysis further found that stigma, discrimination and inadequate recognition of the association between poverty and mental illness had contributed to the low prioritization of CAMHS on country policy agendas, in comparison to other health issues such as infectious diseases (TB, HIV) (Kleintjes et al, 2010). The low priority on the agenda affected CAMHS policy development, resourcing and implementation in all four countries.

Patel et al (2008) assert that the burden of child and adolescent mental illness can be reduced by health stakeholders paying more attention to prevention, early detection and treatment of mental illness in adulthood, including the reduction of stigma towards mental health, and this also applies to CAMH.

CAMH in South Africa

The findings reported about CAMHS in LMICs, including Africa, are similar to those faced by South Africa.

According to Lund et al (2012) mental illnesses are ranked third in their contribution to the burden of diseases in South Africa and one in six South Africans present with a mental illness. However, the true prevalence of mental illnesses in South African children and adolescents is not known (Patel et al, 2007; Barrane & Falissard, 2018). The Mental Health and Poverty Project (MHaPP) (2020), asserted that 17% of children and adolescents suffer from mental illnesses. Flisher et al (2012) cites the limited evidence on CAMH interventions and shortfalls in the data on the prevalence of child and adolescent mental illnesses as complicated by the quantifying mental health diagnostic instruments that are not valid to the local context (Flisher et al, 2012).

There are numerous factors which contribute to the high prevalence of CAMH illness in a country like South Africa (Flisher et al, 2012). Poverty and its associated effects, which is further compounded by the HIV/AIDS epidemic which affects a large number of South African children, have been stated to be a risk factor for psychological disorders in children and adolescents (Flisher et al, 2012). Additional factors include children being exposed to high levels of violence at schools and in their communities (Seedat et al, 2009).

Child and adolescent mental health policy in South Africa

It was recommended in a study by Mokitimi et al (2018) that the South African government must consider the significance of CAMH services and have proper plans for the development of appropriate CAMH policies and monitoring. Despite the public health risk of untreated child and adolescent

mental illness, policy and implementation plans for CAMHS are still inadequate in South Africa. In general the health services in South Africa still give priority to infectious diseases, to the neglect of CAMH.

Mokitimi et al (2018) also found that none of the nine provinces of South Africa had a provincial CAMH policy. The Western Cape and Kwa-Zulu Natal were the only two provinces which acknowledged the importance of separating services for children and adolescents from those of adults. Mokitimi et al (2018) therefore argue for the need to urgently address CAHM policy development and implementation in South Africa and other LMICs.

CAMH requires services in a number of different facilities and settings in the health system, to ensure a seamless transition from early identification, to treatment (both out- and in-patient), follow-up and ongoing mental health support. However, given the complexity of mental health in children, collaboration between sectors such as the Department of Education and Social Development, Safety and Security (given the contribution of violence to mental illnesses) and community-based Non-Governmental Organizations (NGOs) is an important part of addressing and improving CAMH. A very important setting for the early identification, care and follow-up support of children with mental illnesses is the school setting, given that children spend up to 12 or 13 years in formal schooling and at least 1000 hours per year in the classroom setting.

The importance of schools as a setting for CAMHS

Schools are an important setting for health promotion and for addressing key child and adolescent health issues, including mental health. This is so, as children and adolescents spend a significant number of days per year, and years of their early life in school. The schooling years are important formative years and the direct link between health and education during these years have significant implications for children's overall well-being and their educational progress Integrated School Health Programme (ISHP, 2012). Another important reason for using schools as one of the settings for providing aspects of CAMHS is the potential benefit they offer to children who do not have access to health prevention services before they enter school and may not have benefitted from early identification of mental and behavioural disorders, and in the longer-term it helps prepare children for a healthier adulthood (ISHP, 2012; Shung-King, 2013).

Schools and mental health in LMICs

The school setting is one of the best places to provide mental health needs to school-enrolled children and adolescents, as it has the potential to reach out to high numbers of children that may not have access to services outside the school setting (Omoeva et al, 2011 in Fazel et al, 2014). School-aged children in LMICs constitute more than 80% of the world's population of children and adolescents (Barry et al, 2013), but paradoxically LMICs have inadequate resources to educate and provide

sufficient services to children and adolescents. An estimated nine percent (almost 58 million) of primary school children are not in school worldwide, with more than half of these children living in sub-Saharan Africa (Barry et al, 2013). South Africa has a very high enrolment rate into Grade 1, more than 95%, but strong attrition as adolescents progress to high school grades, which makes mental health support all the more important.

It was found by Kieling et al (2011); Barry et al (2013) from studies in HICs that a correlation exists between poor mental health and educational difficulties and addressing mental health in schools was stressed. This also applies to LMICs. Although schools are found throughout rural and urban areas of LMICs, the so-called "mental health gap" still exists, meaning there are still many unaddressed mental health needs globally for children and adolescents, despite the availability of the schooling infrastructure which could serve as a setting for addressing CAMH (Patel et al, 2008; Kieling et al, 2011).

While there appears to be agreement that schools should be used as settings through which to improve and promote mental health (Fazel et al, 2014; Patel 2008), schools in LMICs are faced with shortages of human resources, high number of school learners in classes and poor resources and training to manage mental illnesses in school children, further compounded by stigma (Patel et al, 2008). Additionally, Patel et al (2008) assert that there is a lack of good evidence of treatment of mental disorders such as depression and post-traumatic stress disorder (PTSD) in children and adolescents living in LMICs. This lack of evidence may contribute to poor prioritization of child and adolescent mental health services in schools. Public education and promotion of mental health services still needs to be done in many parts of LMICs in order to reduce stigma attached to mental illnesses and raise awareness amongst communities, educators (teachers) and the government (Patel et al, 2008). Some of the reasons for this could be the limited evidence and availability of research studies that have been conducted and published on school-linked mental health interventions in LMICs and HICs (Kieling et al, 2011). Therefore, given the above, it can be argued that the role of schools in prevention and promotion of mental health needs to be a priority in the mental health agenda globally (Reid et al, 2012).

Policy provisioning for CAMH in South African schools:

Current policy provisions for CAMH in the school setting

Two important policies set the stage for providing CAMH in the school setting: the ISHP, that makes provision for a range of services to school-going children, including mental health services; and the national Child and Adolescent Mental Health Policy Guidelines.

The CAMH Policy Guidelines

The CAMH policy guidelines is a key national policy document that exclusively addresses CAMH and was developed between 2001 and 2003 (Mokitimi et al, 2018). The national CAMH policy was developed to guide the formulation of provincial CAMH policies that by using a primary care and intersectoral approach and the policy formed a three-tier model for CAMH service and the movement of children was outlined between these tiers (Mokitimi et al, 2018). Whilst quite broad in its prescripts, it makes reference to the school setting in a number of different sections. Section 62 of the document makes the most specific reference to schools and lists what should be addressed in schools. It states that:

The school is an important setting to provide interventions to address mental health since it has the possibility to reach large numbers of children and adolescents. The WHO Mental Health Programme has presented a set of characteristics that they refer to as 'Child Friendly Schools', which improves the mental well-being of learners. These characteristics include: To promote acceptance and equality between boys and girls, between children and adolescents of diverse cultural, religious and social groups. Providing a learning environment that is formed on flexible involvement and co-operation in the teaching and learning procedures; no physical punishment, no bullying, the improvement of a supportive and encouraging environment; the strengthening of relations between school and family; providing support to the development of young people's creativity and academic capabilities for example this opens opportunities for leisure and creativity and using natural talents. It also promotes self-esteem and self-confidence in the learners. Schools should also provide assistance and focus on children who are not progressing academically.

Beyond this section 6.2, a few additional references are made to the link between schools and CAMH, including the following which quotes directly from the policy: "Life skills also serve as a vehicle for introducing various programmes in schools, for example, prevention of abuse, prevention of HIV/AIDS, promotion of mental health and prevention of violence. Priority objectives in implementing further this general strategy are thus to: support existing policies and programmes regarding life skills located in the provincial and national department of education" (DoH, 2003, p16). It is important to form relations with schools as part of developing mental health in homes, families and communities.

The CAMH policy guidelines provide extensive suggestions pertaining to what the school setting should aim for to promote good mental health in the school environment and it includes: detailed skills to be communicated through a formal life skills curriculum; the type of values and environment that needs to be part of a school; specific services that target substance abuse. These are national

guidelines and it is the DBE and DOH's responsibility in each province to turn this into realistic, interventions and services that can be implemented (DoH, 2003; Mokitimi et al, 2018).

The ISHP

The ISHP aims to develop and strengthen current school health services with some changes that include a school health programme that has been in existence in South Africa for a long time, although it was not fully implemented in all areas of the country (Onya, 2007; ISHP, 2012). South Africa officially launched the first national school health policy in 2003, but the implementation of this policy remained poor (Shung-King, 2013). In 2010, the President of the Republic of South Africa, in his state of the nation address called for the restoration of health programmes in public schools in South Africa (ISHP, 2012). In response, the Department of Health launched the new Integrated School Health Programme (ISHP) in 2012. This new policy aims to improve school health services following the failed implementation of its predecessor, the 2003 National School Health Policy (Shung-King, 2013).

A dedication to a close collaboration between all sectors such as the Department of Health (DOH), Basic Education (DBE), and Social Development (DSD). Additionally, it places an emphasis on the provision of comprehensive health services, instead of only screening and referral services in schools (ISHP, 2012). This includes the provision of aspects of mental health services through the ISHP, however the exact implementation of CAMH and how it would be addressed in schools is not clearly specified in the policy. A number of associated legislative frameworks were referenced in the ISHP, and importantly included: The Children's Act (Act No.38 of 2005) as amended and the Mental Health Care Act (Act No. 17 of 2002), both of which provide important prescripts for addressing child and adolescent mental health.

The ISHP is intended to be provided in mainstream and special schools and these two operate differently. According to the Department of Education White Paper 6 (2001) special schools function differently from mainstream schools. Special schools enrol learners who have disabilities (physical, intellectual or hearing impaired) these learners require high levels of support and have an onsite support team within the school encompassing a school nurse, speech therapists, occupational therapists, physiotherapists and a psychologist/ school counsellor. Full service / inclusive schools are equipped to provide support to learners with a variety of learning needs. Mainstream schools are where learners require minimal support to be integrated into the normal classroom routine (White Paper 6, 2001). Mainstream schools do not normally have an onsite support team that consists of health professionals like special schools. On paper, there is a district based support team that renders services to these schools and identify learners with barriers to learners such as ADHD, physical and learning disabilities, the services do not work as neatly in practice.

The ISHP policy document contains several references to mental health. Firstly, it recognises the importance of mental health in children and adolescents, and the integral relationship between mental health, learning and educational achievement (ISHP, 2012). In response, the ISHP provides for a package of health care to be provided in and through schools, in an integral partnership between health and education and other related sectors. The ISHP also regards the Child and Adolescent Mental Health Policy Guidelines as a key interrelated policy, with which the ISHP should be intersecting around CAMH provision in schools.

In the ISHP, mental health screening, assessment and services are posited as a key part of the ISHP package of services. Mental health is listed as a key aspect of the ISHP package of care for all learners, from Grade 1 to Grade 12.

It says very little more specifically about how this has to be thought about and implemented, except in relation to the basic screening package upon school entry and in the foundation phase of school (Grades 1 to 3). For this phase, the ISHP prescribes that school health teams will be expected to "Perform a basic mental health and/or psychosocial risk assessment" on all Foundation phase learners, meaning that such instruments and tools to perform the assessment must be available and that school health teams must be trained to do such an assessment. The ISHP also highlights the importance of health education around mental illnesses, including depression and anxiety, suicide, drug and substance abuse (ISHP, 2012).

Despite the importance of mental health and the ISHP provisions for mental health services in schools, the implementation of this remains absent, or inadequate at best (Shung-King, 2013). The entire ISHP is currently not implemented properly and therefore it is no surprise that mental health services are also not implemented properly (Shung-King, 2013). Reasons for the limited implementation are unclear and the study conducted by Mokitimi et al (2018) explored the situation of CAMH policy and service provisioning at a national level and in all nine provinces of South Africa. This study forms part of the broader Mokitimi study, and looks specifically at the aspect of mental health service provision in schools in one province of South Africa.

The original study

The original PhD study explored the situation of CAMH policy and service provisioning at a national level and in all nine provinces of South Africa. The study specifically explored the current state of policy provision, conducted a situational analysis of CAMH across all nine provinces and looked in detail at the potential and implications for policy implementation on one of the provinces, the Western

Cape Province. The ultimate aim of the PhD was the development of a service model for mental health provisioning for children and adolescents.

The original study aim and objectives

The aims of the original PhD study were to conduct a situational analysis of CAMH services, to explore the perspectives of CAMH users and providers regarding needs, barriers and facilitators for CAMH services and to develop a service delivery model for CAMH services to inform policy implementation in South Africa and other low resource environments.

The study objectives were:

1a. To perform a Policy evaluation of current mental health policy, plans and legislation in South Africa.

1b. To perform a situational analysis of current CAMH services in the Western Cape.

1c. To perform a stakeholder analysis in the Western Cape.

2. To explore the user and provider perspectives regarding needs, barriers and facilitators for CAMH services in the Western Cape.

3a. To synthesize the findings from objectives 1 and 2, compare them with the ideal service model set out by the WHO and use them to develop a service delivery model for CAMH services.

3b. To engage key stakeholders (including Policy makers and planners from Provincial department of health) in a Theory of Change process to develop a model and approach to facilitate effective policy implementation.

In fulfilment of the study objectives, a combination of document reviews and key informant interviews were done.

The original study conducted a detailed review of all relevant policy documents at a national and provincial level that had any bearing on CAMH and found that policy on CAMH in general was rather thin and mostly absent at provincial level, in the sense that national policy that had relevance for CAMH did not find expression in any provincial-specific policies on the issue.

Objective 2 of the larger study in particular sought to explore the user and provider perspectives regarding needs, barriers and facilitators for CAMH services in the Western Cape. One group of providers addressed in this study was health service providers who engage more specifically with CAMHS in relation to schools and this forms the subject of this study.

This study

Rationale for this study

Given the important potential of the school setting in addressing CAMH, it is important to understand the current status of mental health service provisioning in and through schools, and how mental health is viewed and executed by those who are in a position to contribute to strengthening CAMH in and through schools. From the broader study and other analyses, we know that current policy that provides some guidance on mental health service provision in the school setting is relatively weak in how it was developed, and equally inadequate in the implementation thereof. However, no study had as yet specifically explored as to what CAMH in the school setting means, how it is perceived and how health service providers perceive and experience CAMH in schools.

This study hopes to contribute to this knowledge gap by exploring one of the aspects, namely the perspectives of key health service providers in relation to CAMH in schools.

Various health systems frameworks, including the WHO health systems building blocks, situate 'services' as a crucial part of the health system and in fact all other supporting parts of the system have to be functional and work together to support the delivery of services (WHO, 2007). The health systems frameworks emphasise the inter-relatedness of the different components with one another and situate people, both those who work in the health system and those who are beneficiaries of the health system as central. The sustainable development goals (SDGs) also emphasise the importance of intersectoral collaboration in all aspects of health, well-being and development. Therefore, understanding perspectives of key actors, in this instance health service providers, in the delivery of a key health service, in this instance CAMHS, and the delivery of CAMHS in the school setting, thus recognising the crucial nature of working across sectors for improving health and well-being, frames the approach taken by this study.

This study aim and objectives

This study is nested in Objective 2 of the original study and in particular focuses on the perspectives of health service providers on needs, barriers and facilitators of CAMH services, as explored in the original study. In particular, their perspectives on school-linked CAMH services will be explored from these interviews through conducting a secondary analysis on a subset of key informant interviews collected as part of Objective 2 of the original study.

Research Question for this study

What are health service providers' perspectives of child and adolescent mental health services in public sector schools in the Western Cape?

Research aim and objectives

***Aim*:** The aim of this study is to explore the perspectives of CAMH service providers regarding needs, barriers and facilitators for CAMH services in the Western Cape, and in particular services linked to, or located in, public sector schools, in order to derive lessons on how to strengthen CAMH in the school setting.

Objectives:

1. Explore the key health service provider perspectives of mental health services in schools in the Western Cape Province, in particular their perceptions of needs, barriers and facilitators of CAMHS.

2. Identify relevant recommendations from the research for strengthening CAMH in the school setting.

Research Methodology

Study Setting

This study explores the perspectives of key service providers on CAMH in schools in the Western Cape Province of South Africa.

The original study focused on key informants from the Department of Health (DOH) and Western Cape Education Department (WCED) from the Metro District in the Western Cape. The DOH and WCED has differently delineated substructures for the Metro District. The Western Cape Metro District includes four substructures under WCED, namely Metro North, Metro South, Metro East and Metro Central, which fall under urban districts based on city wards declared by the province (WCED, 2012). The health sub-structures include Metro West, Metro East, West Coast, Winelands/Overberg and Eden/ Central Karoo. Schools in the Metro District include public sector and private sector schools.

This study focused on public sector schools only in the Metro district of the Western Cape and these include both mainstream schools and special needs schools. These schools cater for children and adolescents between the ages of 6 to 18 years, grade R to grade 12 (WCED, 2012). There are also private schools under the Metro District which are independently funded.

The current health service provisioning in schools is provided as part of the package of the ISHP. There are professional nurses assigned to schools that provide the following services: health promotion and education, mental health services, oral health screening, parasite control and immunization, and aspects of sexual and reproductive health services (WCED, 2012; ISHP, 2012).

A range of health service providers in the WC Metro district are engaged with CAMH in different ways, and these include the professional nurses assigned specifically to schools, school doctors (a category of staff which only exists in the Western Cape province), general primary health care and specialist staff (nurses and doctors) who provide mental health services, but not necessarily only to children or specifically in relation to schools.

Study Design

This is a qualitative exploratory study, using secondary data for the analysis.

This study will use qualitative data analysis methods, on qualitative key informant interviews, already conducted. This secondary data analysis will be done on interviews conducted on a purposive sample of nine health service providers, on their perspectives about mental health provisioning for school-going children and adolescents. The key informant interviews were conducted as part of a broader study on CAMH policy and its implementation in South Africa (Lead investigators Mokitimi & de Vries). In the main study, multilevel data were collected to describe the policy and resource landscape, and to examine the perspectives of senior stakeholders, providers and service users (see e.g. Mokitimi, Schneider & de Vries, 2018; Mokitimi, Jonas, Schneider & de Vries, 2019).

A qualitative data analysis approach is applicable when the researcher seeks to discover a phenomenon and particularly in situations where there is limited information about the issue (Robson, 2002). It is also a flexible approach that allows the researcher to explore and obtain in-depth information about a phenomenon.

Perspectives are defined as different viewpoints and attitudes towards a certain phenomenon (McLeod, 2013). Researching perspectives of service providers in health systems research play an important role in exploring people's experiences and understanding their circumstances from their point of view, without the researcher trying to influence in any way. The researcher used an exploratory approach and flexible design to explore the perspectives of key service providers in CAMHS, to elicit the 'why and how' of their understanding and experiences of how CAMH functions in schools in the Western Cape (Sheik et al, 2011).

In exploring perspectives, a qualitative study is less interested in amassing large numbers of perspectives, but is more interested in elicit perspectives from a range of key informants that will represent different viewpoints on the issue of interest, so despite it being small, the sample contained a wide range of participants engaged with CAMH services in the school setting.

A thematic analysis approach will be used to identify key themes from the interviews. These will be coded manually, analyzed and interpreted to make meaning of the issues of interest.

Study Population and Sampling

The original study included key stakeholders who are service providers and users within child and adolescent mental health services in all nine provinces. A purposive sample of nine diverse health service providers involved in child and adolescent mental health were selected (psychiatrists, school doctors, school nurses, professional nurses working in primary level health care facilities, psychiatric nurses and occupational therapists), to gain a spectrum of perspectives on mental health service provisioning for school-going children and adolescents. A list of CAMH institutions was requested from the provincial office with the names and contact details of CAMH providers. The decision to include the participants was based on their availability and willingness to be interviewed. Participants were selected from different facilities under the Western Cape Metro District substructure. This particular study will explore information collected only from key stakeholders involved with child and adolescent mental health services in relation to schools in the Western Cape Province.

Four key themes were explored in the original study and formed the deductive themes that this study will code for: These included: key informant's understanding and experience of CAMHS in schools and of the ISHP; barriers and facilitators of CAMH services in schools; prospects for intersectoral collaboration and views on how to improve CAMHS.

Additional inductive themes will be coded for as these emerge.

Data collection (in the original study)

Seven semi-structured individual interviews were available for analysis with health professionals who worked specifically in school/educational settings and school health services. The interviews were conducted at a central venue in the areas where the participants live and work. Each interview was approximately 45-60 minutes long. The interviews were conducted over a period of two months. They were conducted in English as the participants were confident in this language and there was no need for any translation. Two additional participants were interviewed together in a group interview, using the same interview schedule (topic guide) as for the individual interviews. This was done for logistical purposes such as their availability and central venue.

Interview recordings

The interviews were conducted and recorded by one of the authors (SM). The interviews were audio recorded and field notes were taken during and immediately after the interviews about observations and ideas to provide any additional record of what was said. The recorded interviews were stored in a laptop protected by passwords. The audio recordings were also backed up on an external hard drive only accessible to the main researchers to prevent data loss.

Transcription of interviews

Interviews will be transcribed verbatim by an external transcriber sworn to confidentiality through a written agreement by the main researcher. The interviews will be transcribed in a word document. The

transcribed documents will be stored on a password protected laptop and backed up on an external hard drive only accessible to the main researchers.

Data coding and analysis

Coding is a process of labelling and organizing data systematically (Robson, 2002; Ritchie & Lewis, 2003. Data will be analyzed and interpreted and a conceptual framework will be devised from the selected themes. A qualitative thematic analysis approach will be used, drawing on a combination of deductive and inductive thematic analysis.

The researchers will first familiarise themselves with the data before coding for the deductive themes and identifying new, inductive themes. The deductive themes will be identified and highlighted from transcribed data, whilst considering new emerging themes will also be considered. Themes will be grouped into categories based on 'main theme and sub-theme' to generate codes. Themes that were drawn from the original study include: perceptions of CAMHS; barriers and facilitators; intersectoral collaboration; referral pathways and suggestions to improve CAMHS. The inductive themes include: early identification of CAMH illness; the importance of a multidisciplinary teams; lack of trained staff and adult service reluctance to see children.

Data Analysis

<u>Objective 1: Explore the perspectives of key informants on CAMHS in schools. (Appendix A)</u>

The semi-structured interviews were conducted with various stakeholders who play a role in mental health services in schools such as mental health nurses, occupational therapists, psychiatrists, school doctors and mental health district officers who work with the children.

This objective will explore in depth the perspectives of key stakeholders involved in child and mental health services in schools in the Western Cape Province. The themes that will be explored include key informant experiences regarding barriers, facilitators and systems in place for CAMHS in this province. A data extraction sheet will be developed in an Excel Spreadsheet for coding themes of interest from interviews with key informants.

Objective 2

This objective specifically extracted any suggestions and recommendations made by the interviewees on how to improve CAMHS and CAMH policy. These will then be put forward as suggestions from this study for policy makers and practitioners.

The Thematic Framework

This study will employ a thematic analysis, combining a set of deductive themes that were mainly generated from the original study, and will combine it with new, emerging themes from the interview transcripts. Additional inductive themes will be added to the coding framework as they arise. An initial two or three will be coded and new themes that emerge will be added to the coding framework. The completed (deductive and inductive coding framework) will then be applied to all the transcripts.

The specific themes of interest that will be coded for deductively are outlined in Appendix A:

Rigour

Rigour in qualitative research can be protected by providing a full report on the method of data collection and analysis to ensure readers can evaluate that the analysis and interpretation is trustworthy (Robson, 2002). Based on the original bigger study, rigour and quality of research was ensured by doing member checking at the end of interviews and focus group discussions (FGDs). On this study, the interpretation and writing of data during data analysis will also be reviewed by other researchers to ensure credibility and prevent bias.

Data Analysis

Qualitative analysis methods will be used to analyse the data as this strategy allows for the exploratory and explanatory purposes of the study (Gilson, 2012). The researcher will do transcriptions of key informants from FGDs and semi-structured individual interviews that were

conducted in the original study. A thematic analysis approach will be used to identify themes from the key informant interviews and document reviews. The researcher will first familiarize themselves with the data before identifying themes. Themes will then be identified and highlighted from transcribed data, new emerging themes will also be considered. This will be done by carefully identifying and selecting common and recurring themes. Themes will then be grouped into categories based on 'main theme and sub-theme' to generate codes. Coding is defined as a process of labelling and organizing data systematically (Robson, 2002; Ritchie & Lewis, 2003). Data will be analyzed and interpreted and a conceptual framework will be devised from selected themes. Themes drawn from original study include: perceptions of CAMHS, barriers and facilitators for care, care pathways, intersectoral collaboration and opinions on how to improve CAMHS. An excel spreadsheet will be used for coding themes in order to facilitate the process of synthesis and comparison with other data sets.

Data Management Plan

This study is part of an original research and the data management processes followed by first researcher will be maintained. The recordings and transcriptions that will be used on this part of the study as secondary data analysis will be stored electronically in password protected files for a period of three years before they are destroyed. During transcription the researcher will remove all identifying information from interviews and maintain anonymity from the original research study. Anonymity will be maintained by giving all participants a code to hide their true identity.

Ethical Considerations

The ethics approval for this study will be obtained from the University of Cape Town, Health Sciences Faculty Human Research Ethics Committee and the Western Cape Department of Health (WCDOH). No new data will be collected from this study as this study will be analyzing secondary data from a PhD study.

Informed Consent:

In this part of the study, the researcher will obtain ethics permission to access the secondary data that was conducted on the original PhD study. There will be no first hand interviews conducted with the participants since this study is a desk-based secondary data analysis study.

Confidentiality:

Confidentiality refers to the protection of the participant's personal information (Robson, 2012). The researcher will uphold the confidentiality that was promised by the first researcher to the participants, no participant's identities will be revealed during the data analysis and dissemination process.

Anonymity:

All the personal information relating to the participants will be protected and their anonymity will be maintained. The data that was collected in the bigger study that will be analysed for this study also be protected and stored in a laptop protected by passwords. All the research data will also be backed up

on an external hard drive that is only accessible to the researcher and this is to prevent possible loss of data.

Risks and benefits:

It is hoped that the results of the study will be beneficial to add to an action plan that aims to improve child and adolescent mental health services in the Western Cape and the rest of the country.

Beneficence:

The benefits of the study aim to contribute to the knowledge gap of CAMHS in Western Cape South Africa and other LMICs. Benefits of the study will also improve the CAMHS service delivery and influence policy development.

Non-maleficence:

This research study poses no harm to any participants since it is a desk-based secondary data analysis study.

Dissemination of Findings

Once the study is complete, the findings of this research will be disseminated across board to local and international conferences, peer-reviewed publications and health systems and policy implementation forums and websites as a support to strengthening mental health services in schools. The results of this study will also be disseminated to the (WCDOH) and the UCT School of Public Health and Family Medicine. A peer-reviewed publication will be written and an appropriate journal will be selected to publish these research findings.

Study Budget

This is a secondary research project that forms part of a PhD study. It will be a desk-based secondary data analysis study and therefore has no budgetary requirements.

Study Limitations

The study has certain limitations, which often arises when doing a secondary analysis. In this study, the perspectives of staff working in schools in the education sector were not obtained and that is gap that should be addressed through further research.

The study only focused on public sector schools and in the urban metro setting, so the perspectives of health service providers working in other contexts may be different.

The sample, albeit representative of a spectrum of different CAMHS providers, is small, and may have benefitted from interviewing a wider spectrum of participants, or more than one participant in a given category of health service provider. However, the wide spectrum of participants across different parts of the health system compensated for this.

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APPENDICES

Appendix A

Themes:	
Facilitators of CAMH care	The researcher interpreted this to mean anything mentioned by interviewees that enhanced the planning and delivery of CAMHS.
Barriers of CAMH care	The researcher interpreted this to mean anything that hindered the planning and delivery of CAMHS.
Referral pathways for CAMHS	The researcher interpreted this to mean the pathways for referring children and adolescents from one service setting/or service provider to another, and that existed within the health or education system.
Intersectoral collaboration opportunities for CAMHS	This referred to any reference where service providers from health, education, social development, non-governmental organisations, or any other sector worked together for the delivery or improvement of CAMHS.

Part B: Journal Article Manuscript

Targeted Journal: International Journal of School Health [2]

Child and adolescent mental health in school settings: the perspectives of health service providers on mental health policy and interventions in Western Cape, South Africa.

Khusela Mgoqi [1]

MGQKHU001

MPH (Health Systems)

[1] For the purpose of this thesis, the student is the sole and first author of this article
[2] Instructions for authors in appendix D

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PART B: JOURNAL ARTICLE MANUSCRIPT

Targeted Journal *International Journal of School Health* [2]

Child and adolescent mental health in school settings: the perspectives of health service providers on mental health policy and interventions in Western Cape, South Africa.

Khusela Mgoqi[1]

ABSTRACT

Background: Mental health is recognised as a critical public health challenge globally, yet child and adolescent mental health receive low priority, particularly in low- and middle-income countries. Children and adolescents spend a significant proportion of their lives in school, suggesting that educational settings are potentially important environments where child and adolescent mental health (CAMH) can be strengthened to improve early identification and treatment. This study explored the perspectives of key service providers on needs, barriers and facilitators of child and adolescent mental health services (CAMHS) in schools in the Western Cape province of South Africa.

Methods: This study employed an exploratory qualitative approach. A total of nine participants were interviewed by one of the authors (SM). A purposive sample of nine diverse health service providers involved in child and adolescent mental health were selected. The first author (KM) conducted a thematic analysis of the interview data by drawing on a combination of deductive and inductive thematic analysis.

Results: There were nine interviewees selected who were diverse health service providers involved in child and adolescent health which included school doctors, school nurses, psychiatrists, occupational therapist, clinical nurse and mental health nurse. Thematic findings were grouped under: a) perceived needs, b) barriers and c) facilitators. The need to improve intersectoral collaboration, following a referral pathway, a strong multidisciplinary team (MDT) and integration of services were all identified important in the delivery of CAMHS. The neglect of CAMHS in both education and health sectors and limited resources were identified as barriers. Facilitators included intersectoral collaboration, task shifting from nurses and doctors to community health workers, and committed health workers.

Conclusion: CAMHS receives very low priority in comparison to other health issues such as HIV/TB in South Africa. There is an urgent need to address CAMHS in South Africa, and the school setting is an important site of intervention. Intersectoral collaboration, task-shifting, continuous training of teachers and health professionals are potential strategies that could be used to strengthen access to CAMHS in education sector and have integrated services in the Western Cape Province.

Keywords: child, adolescent, mental health services, perceptions, schools, health policy, Western Cape, South Africa

Keywords

Child, adolescent, mental health services, school setting, experiences, barriers, facilitators, Western Cape, South Africa, health systems strengthening

Key Messages

- Child and adolescent mental health (CAMH) services receive low priority especially in LMICs.
- The school setting is potentially essential environments where CAMH services can be strengthened to improve early identification and intervention.
- Challenges faced by CAMH in LMICs and South Africa include inadequate human and financial resources, limited training in CAMH, limited services, poor awareness and discrimination.
- Poor intersectoral collaboration, lack of trained staff, adult services reluctance to see children and inappropriate referral pathway were identified as barriers to CAMHS in the Western Cape, South Africa. While a strong multidisciplinary team (MDT), early identification and committed health workers were facilitators of CAMHS.
- Intersectoral collaboration, a strong MDT, correct referral pathway and continuous training of staff could be used as potential strategies to strengthen access to CAMHS in schools.

Background

Mental health is recognised as a critical public health challenge globally and forms a significant proportion of the global disease burden, yet receives low priority, particularly in low- and middle-income countries (Kieling et al, 2011; Fazel et al, 2014). At the 71st World Health Assembly in 2018, mental health was recognised as a non-communicable disease (NCD) requiring urgent attention, including prevention and control (WHO, 2018). It is essential that mental health be incorporated into health policy and practice to address the significant gap of mental health interventions and contribute to improvement of global health (Tomlinson et al, 2016).

It was found by (Kieling et al, 2011; Barry et al, 2013) from studies in high income countries (HICs) that a correlation exists between poor mental health and educational difficulties and addressing mental health in schools was stressed. Although schools are found throughout rural and urban areas of LMICs, the so-called "mental health gap" still exists, meaning there are still many unaddressed mental health needs globally for children and adolescents, despite the availability of the schooling infrastructure which could serve as a setting for addressing CAMH (Patel et al, 2008; Kieling et al, 2011).

Mental illnesses are ranked third in the contribution to the burden of diseases in South Africa and one in six South Africans presents with mental illness (Lund et al 2012). The Mental Health and Poverty Project (MHaPP) (2020), asserted that 17% of children and adolescents suffer from mental illnesses. The challenges faced by Child and Adolescent Mental Health (CAMH) in South Africa, as in other LMICs, include inadequate human and financial resources including limited training in CAMH, limited services for CAMH, poor awareness of CAMH and discrimination (Kleintjes et al, 2010; Mokitimi et al, 2018; Mokitimi et al, 2019). While these challenges apply to all sectors of the population, children and adolescents worryingly bear a greater burden of mental health compared to adults (Patel et al, 2007; Polanczyk, 2014) and yet face neglect in this area of their well-being. (CAMH) illness poses a huge risk to public health and if left untreated is likely to progress to adulthood (Armstrong & Henshall, 2013). It is therefore crucial to early identify and promptly intervene in mental health challenges in children and adolescents.

According to Patel (2008), the burden of CAMH illnesses can be reduced by health stakeholders paying more attention to prevention, early detection and treatment and in that way mitigate the impact of mental illness in children and adolescence and in later adulthood. While there appears to be agreement that schools should be used as opportunity to improve and promote mental health as this would prevent further mental disorders in adulthood (Fazel et al, 2014; Patel 2008), schools in LMICs are faced with shortages of human resources, high number of school learners in classes and poor resources and training to manage mental illnesses in school children, further compounded by stigma (Patel et al, 2008). Additionally, Patel et al (2008) also found that there is a lack of good evidence of

treatment of mental disorders such as depression and post-traumatic stress disorder (PTSD) in children and adolescents living in LMICs.

Aside from prevention and treatment services in the health sector, one of the important settings for CAMH intervention is the school setting. As children and adolescents spend many hours each year over a 12 or 13-year period in school, these are important sites for early identification, intervention and ongoing support. A study by Fazel et al (2014) suggests that schools be used as places of opportunity to develop and promote mental health, as this would not only benefit the children during their schooling years, but also prevent further mental illnesses in adulthood.

The school setting is one of the best places to provide mental health needs to school-enrolled children and adolescents, as it has the potential to reach out to high numbers of children that may not have access to services outside the school setting (Omoeva et al, 2011 in Fazel et al, 2014). School-aged children in LMICs constitute more than 80% of the world's population of children and adolescents (Barry et al, 2013), but paradoxically LMICs have inadequate resources to educate and provide sufficient services to children and adolescents. An estimated nine percent (almost 58 million) of primary school children are not in school worldwide, with more than half of these children living in sub-Saharan Africa (Barry et al, 2013). South Africa has a very high enrolment rate into Grade 1, more than 95%, but strong attrition as adolescents progress to high school grades, which makes mental health support all the more important.

The study posits that schools have the potential to reach out to large numbers of children that may not otherwise have access to services outside of the school setting. Patel et al (2008) assert that public education and raising awareness in schools and communities in South Africa will help reduce stigma attached to mental disorders. He also states that the promotion of mental health services needs strengthening.

Child and adolescent mental health services in South Africa

In South Africa policy efforts to address CAMHS have been made. However, despite the presence of a National CAMH policy and specific mental health service provisioning in the Integrated School Health policy (ISHP), this aspect remains neglected. A school health programme has been in existence in South Africa for a long time, although it was not fully implemented in all areas of the country (Onya, 2007; ISHP, 2012). South Africa officially launched the first national school health policy in 2003, but the implementation of this policy remained poor (Shung-King, 2013).

Schools are an important setting for health promotion and addressing key child and adolescent health issues, including mental health. This is so, as children and adolescents spend a significant number of days per year, and years of their early life in school. The schooling years are important formative years and the direct link between health and education during these years have significant

implications for children's overall well-being and their educational progress (ISHP, 2012). Another important reason for using schools as one of the settings for providing aspects of CAMHS is the potential benefit they offer to the children who do not have access to health prevention services before they enter school and may not have benefitted from early identification of mental and behavioural disorders, and in the longer-term it helps prepare children for a healthier adulthood (ISHP, 2012; Shung-King, 2013).

However, the provincial level policy provisions and the implementation of existing national policy is limited. In a study done by Mokitimi et al (2018), the authors found that none of the nine provinces of South Africa had provincial CAMH policies or implementation plans. The mental health policy and CAMH policy only exists at a national level, with no translation of the national policy into province-specific policy and implementation plans (Department of Health, 2013). Two provinces (Western Cape and KwaZulu-Natal) at least recognised the need for a separate CAMH policy, as currently it is subsumed in adult-focused mental health policies.

Two key national policies make provision for CAMH. The first is the CAMH policy guidelines. In these guidelines, the following policy goals are outlined for the school setting: The CAMH policy guidelines make the following provisions for the school setting:

A study by Mokitimi et al (2018) found that none of the nine provinces of South Africa had a provincial CAMH policy. The Western Cape and Kwa-Zulu Natal were the only two provinces who acknowledged the importance of separating services children and adolescents from those for adults. In general, the health services in South Africa still give priority to infectious diseases, to the neglect of CAMH. Mokitimi et al (2018) therefore argue for the need to urgently address CAHM policy development and implementation in South Africa and other LMICs.

CAMH requires services in a number of different facilities and settings in the health system, to ensure a seamless transition from early identification, to treatment (both in-and outpatient), follow-up and rehabilitative support. However, given the complexity of mental health in children, collaboration between sectors such as the Department of Education and Social Development, Safety and Security (given the contribution of violence to mental illnesses) and community –based Non-Governmental Organizations (NGOs) is an important part of addressing and improving CAMH. A very important setting for the early identification, care and follow-up support of children with mental illnesses is the school setting, given that children spend up to 12 or 13 years in formal schooling and at least 1000 hours per year in the classroom setting.

School Health in South Africa: The place for mental health

In South Africa the presence of school health service is implemented through the Integrated School Health Programme (ISHP). The ISHP aims to develop and strengthen current school health services,

with specific dedication to forging a close collaboration between all sectors, in particular the Department of Health (DOH), Department of Basic Education (DBE), and Social Development (DSD). Additionally, it emphasises the provision of comprehensive health services, including mental health service provision (ISHP, 2012). A number of legislative frameworks were referenced in the ISHP, and importantly included The Children's Act (Act No.38 of 2005) as amended and the Mental Health Care Act (Act No. 17 of 2002), both of which provide important prescripts for addressing child and adolescent mental health.

With respect to mental health, the ISHP highlights the importance of health education around mental illnesses, including depression and anxiety, suicide, drug and substance abuse (ISHP, 2012). The ISHP also proposes that Child and Adolescent Mental Health Policy Guidelines should be integrated into all other key child health policies and programmes. Despite the importance of mental health and the ISHP provisions for mental health services in schools, the implementation of this remains absent, or inadequate at best (Shung-King, 2013). The entire ISHP is currently not implemented properly and therefore it is no surprise that mental health services are also not implemented properly (Shung-King, 2013). Reasons for the limited implementation are unclear and the study conducted by Mokitimi explored the situation of CAMH policy and service provisioning at a national level and in all nine provinces of South Africa in order to get a deeper understanding of why CAMH is as neglected as it is. This study forms part of the broader study, and explores provider perspectives of mental health service provisioning in public sector schools in one province of South Africa.

The Integrated School Health Programme (ISHP)

A school health programme has been in existence in South Africa for a long time, although it was not fully implemented in all areas of the country (Onya, 2007; ISHP, 2012). South Africa officially launched the first national school health policy in 2003, but the implementation of this policy remained poor (Shung-King, 2013). In 2010, the President of the Republic of South Africa, in his state of the nation address called for the restoration of health programmes in public schools in South Africa (ISHP, 2012). In response, the Department of Health launched the new Integrated School Health Programme (ISHP) in 2012. This new policy aims to improve school health services following the failed implementation of its predecessor, the 2003 National School Health Policy (Shung-King, 2013).

The ISHP aims to develop and strengthen current school health services with some changes that include: a dedication to a close collaboration between all sectors such as the Department of Health (DOH), Basic Education (DBE), and Social Development (DSD). Additionally, it places an emphasis on the provision of comprehensive health services, instead of only screening and referral services in schools (ISHP, 2012). This includes the provision of aspects of mental health services through the ISHP, however the exact implementation of CAMH and how it would be addressed in schools is not

clearly specified in the policy. A number of associated legislative frameworks were referenced in the ISHP, and importantly included: The Children's Act (Act No.38 of 2005) as amended and the Mental Health Care Act (Act No. 17 of 2002), both of which provide important prescripts for addressing child and adolescent mental health.

The ISHP is provided in mainstream and special schools and these two operate differently. According to the Department of Education White Paper 6 (2001) special schools function differently from mainstream schools. Special schools enrol learners who have disabilities (physical, intellectual or hearing impaired) these learners require high levels of support and have an onsite support team within the school encompassing a school nurse, speech therapists, occupational therapists, physiotherapists and a psychologist/ school counsellor. Full service / inclusive schools are equipped to provide support to learners with a variety of learning needs. Mainstream schools are where learners require minimal support to be integrated into the normal classroom routine (White Paper 6, 2001). Mainstream schools do not normally have an onsite support team that consists of health professionals like special schools. On paper, there is a district based support team that renders services to these schools and identify learners with barriers to learners such as attention deficit hyperactivity disorder (ADHD), physical and learning disabilities, the services do not work as neatly in practice.

Child and adolescent mental health services in the Western Cape, South Africa:

This study focused on the Western Cape, which is one of nine provinces in South Africa. The reason for focusing on the Western Cape is the viable school health service that exists in this province, thus providing a potential platform for the provision of school-linked mental health services. In a study by Shung-King et al (2013) on reflections of school health in South Africa, this province was the only one that had made good progress and had sufficient school health teams for implementing the ISHP.

Mental health services in the Western Cape are provided for both children and adults as in and out-patient services (Western Cape Government, 2018). Hospital-based mental health services are offered in the metropolitan district and services are rendered for clients throughout the province. The province has four psychiatric hospitals that offer specialised in-and out-patients services for adults namely: Valkenberg and Stikland Hospitals, William Slater, Lentegeur and Alexander Hospital (Western Cape Government, 2018).

The Western Cape Government (2018) asserts that provincial mental health services for children and adolescents are offered in the following three units: The Red Cross Child and Family Unit, Tygerberg Child and Family Unit and Lentegeur Child and Family Unit. The Red Cross Child and Family Unit provides an out-patient service for children with mental illnesses. The unit also has a specialist in-patient service for children under the age of 12. The Tygerberg Child and Family Unit and the Lentegeur Child and Family Unit provide in-and out-patient services for children and adolescents.

The University of Cape Town's Psychiatry Department at Groote Schuur Hospital, Stellenbosch University's Psychiatry Department at Tygerberg Hospital also offer specialised in-and out-patient services for selected mental illnesses (Western Cape Government, 2018). There are gaps in these services due to insufficient capacity and rural areas in particular are short- due to a limited number of specialists and mental health nurses.

Rationale for this study:

Given the important potential of the school setting in addressing CAMH, it is important to understand the current status of mental health service provisioning in and through schools, and how mental health is viewed and executed by those who are in a position to contribute to strengthening CAMH in and through schools. From the broader study and other analyses, we know that current policy that provides some guidance on mental health service provision in the school setting is relatively weak in how it was developed, and equally inadequate in the implementation thereof. However, no study had as yet specifically explored as to what CAMH in the school setting means, how it is perceived and how health service providers perceive and experience CAMH in schools.

This study hopes to contribute to this knowledge gap by exploring one of the aspects, namely the perspectives of key health service providers in relation to CAMH in schools.

Various health systems frameworks, including the WHO health systems building blocks, situate 'services' as a crucial part of the health system and in fact all other supporting parts of the system have to be functional and work together to support the delivery of services (WHO, 2007). The health system frameworks emphasise the inter-relatedness of the different components with one another and situate people, both those who work in the health system and those who are beneficiaries of the health system as central. The sustainable development goals (SDGs) also emphasise the importance of intersectoral collaboration in all aspects of health, well-being and development. Therefore, understanding perspectives of key actors, in this instance health service providers, in the delivery of a key health service, in this instance CAMH, and the delivery of CAMHS in the school setting, thus recognising the crucial nature of working across sectors for improving health and well-being, frames the approach taken by this study.

Summary of the original study

The original study conducted a detailed review of all relevant policy documents at a national and provincial level that had any bearing on CAMH and found that policy on CAMH in general was rather thin and mostly absent at provincial level, in the sense that national policy that had relevance for CAMH did not find expression in any provincial-specific policies on the issue. This study did not find it necessary to repeat a document review, as no new policy documents emerged since the completion of the original study.

Objective 2 of the original study in particular sought to explore the user and provider perspectives regarding needs, barriers and facilitators for CAMH services in the Western Cape. One group of providers addressed in this study was health service providers who engage more specifically with CAMHS in relation to schools and this forms the subject of this study.

Objective 1:

Semi-structured interviews were conducted with various stakeholders who play a role in mental health services in schools such as mental health nurses, occupational therapists, psychiatrists, school doctors and mental health district officers who work with the children and adolescents in school age.

The key informant interviews were conducted as part of a broader study on CAMH policy and its implementation in South Africa (Lead investigators Mokitimi & de Vries). In the main study, multilevel data were collected to describe the policy and resource landscape, and to examine the perspectives of senior stakeholders, providers and service users (see e.g. Mokitimi, Schneider & de Vries, 2018; Mokitimi, Jonas, Schneider & de Vries, 2019).

This objective explored in-depth the perspectives of key stakeholders involved in child and mental health services in schools in the Western Cape Province. The themes that were explored include: key informant experiences regarding barriers, facilitators and systems in place for CAMHS in this province. A data extraction sheet has been developed in an Excel Spreadsheet for coding themes of interest from interviews with key informants.

Objective 2

This objective specifically extracted any suggestions and recommendations made by the interviewees on how to improve CAMHS and CAMH policy. These were then put forward as suggestions from this study for policy makers and practitioners.

This Study

Research aim and objectives

Aim: The aim of this study was to explore the perspectives of CAMH service providers regarding needs, barriers and facilitators for CAMH services in the Western Cape, and in particular services linked to, or located in, public schools, in order to derive lessons on how to strengthen CAMH in the school setting.

Objectives:

1. Explore the key health service provider perspectives of mental health services in schools in the Western Cape Province, in particular their perceptions of needs, barriers and facilitators of CAMHS.
2. Identify relevant recommendations from the research for strengthening CAMH in the school setting.

Methods

Study setting

This study explored the perspectives of key service providers on CAMH in schools in the Western Cape Province of South Africa. The original study focused on key informants from the Department of Health (DOH) and Western Cape Education Department (WCED) from the Metro District in the Western Cape. The DOH and WCED has differently delineated substructures for the Metro District. The Western Cape Metro District includes four substructures under WCED, namely Metro North, Metro South, Metro East and Metro Central, which fall under urban districts based on city wards declared by the province (WCED, 2012). The health sub-structures include Metro West, Metro East, West Coast, Winelands/Overberg and Eden/ Central Karoo. Schools in the Metro District include public sector and private sector schools.

This study focused on public sector schools only in the Metro district of the Western Cape and these include both mainstream schools and special needs schools and these schools cater for children and adolescents between the ages of 6 to 18 years, grade R to grade 12 (WCED, 2012). There are also private schools under the Metro District which are independently funded.

A range of health service providers in the Western Cape Metro district are engaged with CAMH in different ways, and these include the professional nurses assigned specifically to schools, school doctors (a category of staff which only exists in the Western Cape province), general primary health care and specialist staff (nurses and doctors) who provide mental health services, but not necessarily only to children or specifically in relation to schools (WCED, 2012; ISHP, 2012).

The Western Cape Metro District was selected since most of the key service providers of CAMHS worked in this district and were rendering services across the four sub-districts within DOH and WCED. The interviews were conducted at a central venue where the participants live and work. The selected venue was easily accessible, private and away from distractions.

Study Design

This was a qualitative exploratory study, using secondary data for the analysis. The study used qualitative data analysis methods to analyse qualitative interviews, already conducted as part of the

original study. The secondary data analysis was done on interviews conducted on a purposive sample of nine health service providers, on their perspectives about mental health provisioning for school going children and adolescents. A purposive sample of nine diverse health service providers involved in child and adolescent mental health were selected, as to gain a spectrum of perspectives on CAMH in schools. A total of nine participants were interviewed by one of the authors (SM), and the first author (KM) conducted a thematic analysis of the interview data.

A qualitative data analysis approach is applicable when the researcher seeks to discover a phenomenon and particularly in situations where there is limited information about the issue (Robson, 2002). It is also a flexible approach that allows the researcher to explore and obtain in-depth information about a phenomenon.

Perspectives are defined as different viewpoints and attitudes towards a certain phenomenon (McLeod, 2013). Researching perspectives of service providers in health systems research play an important role in exploring people's experiences and understanding their circumstances from their point of view, without the researcher trying to influence in any way. The researcher used an exploratory approach and flexible design to explore the perspectives of key service providers in CAMHS, to elicit the 'why and how' of their understanding and experiences of how CAMH functions in schools in the Western Cape (Sheik et al, 2011).

In exploring perspectives, a qualitative study is less interested in amassing large numbers of perspectives, but is more interested in elicit perspectives from a range of key informants that would represent different viewpoints on the issue of interest, so despite it being small, the sample contained a wide range of participants engaged with CAMH services in the school setting.

A thematic analysis approach was used to identify key themes from the interviews. These were coded manually, analyzed and interpreted to make meaning of the issues of interest.

Study population and sampling

The original study included key stakeholders who were service providers and users within child and adolescent mental health services in all nine provinces. A purposive sample of nine diverse health service providers involved in child and adolescent mental health were selected (psychiatrists, school doctors, school nurses, professional nurses working in primary level health care facilities, psychiatric nurses and occupational therapists), to gain a spectrum of perspectives on mental health service provisioning for school-going children and adolescents. A list of CAMH institutions was requested from the provincial office with the names and contact details of CAMH providers. In the South African context CAMH institutions are child and adolescent mental health facilities that provide services by the government. CAMH providers refer to health service providers of child and adolescent

mental health within the above mentioned facilities. The decision to include the participants was based on their availability and willingness to be interviewed. Participants were selected from different facilities under the Western Cape Metro District substructure. This particular study explored information collected from key stakeholders involved with child and adolescent mental health services in relation to schools in the Western Cape Province.

Four key themes were explored in the original study and formed the deductive themes that this study coded for: These included: key informant's understanding and experiences of CAMHS in schools, and of the ISHP; barriers and facilitators of CAMH services in schools; prospects for intersectoral collaboration and views on how to improve CAMHS. Additional themes were coded for as they emerged.

Data collection

Seven semi-structured individual interviews were available for analysis with health professionals who worked specifically in school/educational settings and school health services. The interviews, which were conducted at a central venue in the areas where the participants live and work. Each interview was approximately 45-60 minutes long. The interviews were conducted over a period of two months. They were conducted in English as the participants were confident in this language and there was no need for any translation. Two additional participants were interviewed together in a group interview, using the same interview schedule (topic guide) as for the individual interviews. This was done for logistical purposes such as their availability and central venue.

Interview recordings

The interviews were conducted and recorded by one of the authors (SM). The interviews were audio recorded and field notes were taken during and immediately after the interviews about observations and ideas to provide any additional record of what was said. The recorded interviews were stored in a laptop protected by passwords. The audio recordings were also backed up on an external hard drive only accessible to the main researchers to prevent data loss.

Transcription of interviews

Interviews were transcribed verbatim by an external transcriber sworn to confidentiality through a written agreement by the main researcher. The interviews were transcribed in a word document. The transcribed documents were stored on a password protected laptop and backed up on an external hard drive only accessible to the main researchers.

Data coding and analysis

Coding is a process of labelling and organizing data systematically (Robson, 2002; Ritchie & Lewis, 2003. Data was analyzed and interpreted and a conceptual framework was devised from the selected themes. A qualitative thematic analysis approach was used, drawing on a combination of deductive and inductive thematic analysis.

The researchers first familiarised themselves with the data before coding for the deductive themes and identifying new, inductive themes. The deductive themes were identified and highlighted from transcribed data, whilst considering new emerging themes were also considered. Themes were grouped into categories based on ‘main theme and sub-theme’ to generate codes. Themes that were drawn from the original study include: perceptions of CAMHS, barriers and facilitators, intersectoral collaboration, referral pathways and suggestions to improve CAMHS. The additional inductive themes included: early identification of CAMH illness and the importance of a multidisciplinary teams, lack of trained staff and adult services reluctance to see children.

The Thematic Framework

The study employed a thematic analysis, combining a set of deductive themes that were mainly generated from the original study and combined it with new, emerging themes from the interview transcripts.

The key deductive themes are outlined in Table 1 below.

Table 1: Summary of deductive themes explored in the initial interviews

Themes:	
Facilitators of CAMH care	The researcher interpreted this to mean anything mentioned by interviewees that enhanced the planning and delivery of CAMHS.
Barriers of CAMH care	The researcher interpreted this to mean anything that hindered the planning and delivery of CAMHS.
Referral pathways for CAMHS	The researcher interpreted this to mean the pathways for referring children and adolescents from one service setting/or service provider to another, and that existed within the health or education system.
Intersectoral collaboration opportunities for CAMHS	This referred to any reference where service providers from health, education, social development, non-governmental organisations, or any other sector worked together for the delivery or improvement of CAMHS.

Additional inductive themes were added to the coding framework as these arose. An initial two or three transcripts were coded and new themes that emerged were added to the coding framework. The completed (deductive and inductive coding framework) was then be applied to all the transcripts.

The additional inductive themes that were added included the participants' perspectives on:

- Early identification of mental illness
- The importance of multi-disciplinary teams
- Lack of trained staff
- Adult services reluctance to see children

Rigour

Rigour in qualitative research can be protected by providing a full report on the method of data collection and analysis to ensure readers can evaluate that the analysis and interpretation is trustworthy (Robson, 2002). Based on the original study, rigour and quality of research was ensured by doing member checking at the end of interviews and FGDs. The interpretation and writing of data during data analysis was also reviewed by other researchers to ensure credibility and prevent bias.

Ethical Considerations

Ethics clearance for this study was obtained from the University of Cape Town, Health Sciences Faculty Human Research Ethics Committee (HREC reference: 754/2019) and the ethics reference number of the main study is (HREC 188/2016). This study adhered to the ethical principles in accordance to the Helsinki Declaration (2013).

The following ethical principles were considered:

Informed consent:

In this part of the study the researcher obtained ethics permission to access the secondary data that was collected as part of the larger PhD study. There were no first hand interviews conducted with the participants for this study, it was a desk-based secondary data analysis.

Confidentiality:

The researcher ensured that the confidentiality that was promised by the first researcher to the participants was upheld and no participant's identities were revealed during data analysis, write-up of the results, or dissemination process.

Anonymity:

All the personal information relating to the participants was protected and their anonymity was maintained. The data collected from the bigger study that was analysed for this study was protected and stored in a laptop protected by passwords. All the research data was backed up on an external hard drive only accessible to the researcher to prevent any loss of data.

Risk and benefits:

It is hoped that the results of the study will be beneficial to add to an action plan that aims to improve child and adolescent mental health services in the Western Cape and the rest of the country.

Beneficence:

The benefits of the study aim to contribute to the knowledge gap of CAMHS in Western Cape South Africa and other LMICs. Benefits of the study will also improve the CAMHS service delivery and influence policy development.

Non-maleficence:

This research study posed no harm to any participants since it was a desk-based secondary data analysis study.

Dissemination of Findings

The findings of this research will be disseminated across board to local and international conferences, peer-reviewed publications and health systems and policy implementation forums and websites as a support to strengthening mental health services in schools. The results of this study will also be disseminated to the (WCDOH) and the UCT School of Public Health and Family Medicine. A peer-

reviewed publication will be written and an appropriate journal was selected to publish these research findings.

Study Budget

This was a secondary research project that forms part of a PhD study. It was a desk-based secondary data analysis study and therefore had no budgetary requirements.

Study Limitations

The study has certain limitations, which often arises when doing a secondary analysis. In this study, the perspectives of staff working in schools in the education sector were not obtained and that is gap that should be addressed through further research.

The study only focused on public sector schools and in the urban metro setting, so the perspectives of health service providers working in other contexts may be different.

The sample, albeit representative of a spectrum of different CAMHS providers, is small, and may have benefitted from interviewing a wider spectrum of participants, or more than one participant in a given category of health service provider. However, the wide spectrum of participants across different parts of the health system compensated for this.

Results

A total of nine key informants that spanned a spectrum of service providers involved in CAMH were interviewed. The key informants were purposively sampled from the Western Cape Metro District from different sub-structures and selected from different facilities. All but one participant worked for the DOH. The single professional nurse worked as a full-time school-based nurse in a special needs school, in the DBE. The perspectives of the interviewees informed the results captured under the various themes, and some of their responses are reflected as quotes in the narrative of the results, complimented by a sample of quotes in an accompanying table (Appendix C) and otherwise presented as the interpretive narrative of the researcher, in tables or diagrams, as for the referral process.

The first part involves the more descriptive overview of the participants, their roles and responsibilities, the conditions that they engage with, and then followed by their perspectives and experiences of the CAMHS in the WC Metro district.

Table 2: Description of participants, their roles and responsibilities and position in the health system

TABLE 2: Description of roles and responsibilities of key CAMH service providers		
Key Stakeholders	**Roles and responsibilities**	**Where participants are in the health system**
Mental Health District Official	The roles and responsibilities of the mental health district official include working with children and adolescents with mental illnesses. The mental health district official provides training to teachers and parents about mental health and training takes place in schools.	School Health Services (district based, meaning that the participant works across a number of schools in the district)
School Doctor	The roles and responsibilities of the school doctor include setting up the referral pathway with the schools, conducting full assessments in children with behavioural disorders, initiate medication and make follow-ups. Other roles include training medical officers in day hospitals to do follow-ups. Assessments of children and adolescents are conducted in schools. The school doctor receives and manages referrals from	School Health Services (district based, participant works across a number of schools in the district)

	schools, hospitals, social workers and psychologists. The school doctor works in collaboration with psychologists, social workers, speech and occupational therapists from the education district teams.	
Community Psychiatrist	The community psychiatrist works with child and adolescent mental health services, although not as a separate entity from adult services. This specialist is responsible for conducting assessments and providing treatment to children and adolescents with behavioural and mental illnesses. The community psychiatrist receives referrals from paediatricians, Community Health Centres (CHC's) and district hospitals.	Community Psychiatry Services (community based psychiatrist, serving various clinics in the substructure)
Clinical Nurse Practitioner 1 & 2	The clinical nurse practitioners work in schools, crèches and the community. These practitioners provide school health services, family planning in the community and ante-natal services, although the main focus is on school health. The roles and responsibilities include assessment of learners from schools, consultations with teachers and parents to obtain background information about the child. Another important part of the clinical nurse practitioner's duties is to organise scripts and get medication from the pharmacy to deliver to schools. The clinical nurse practitioner also organizes information sessions with	Community Health Services focusing on school health

	NGOs for teachers about behavioural disorders and resources available to them. Referrals to the clinical nurse practitioner come from schools (via SBST) and the school doctor.	
Professional Nurse, school-based	The school nurse is based at the school full time (special school). The school nurse's roles and responsibilities include the following: assisting in admissions, giving medication to children at the school (e.g. children with epilepsy and ADHD), organizing special health talks with stakeholders such as on epilepsy day, HIV/AIDS day, Down Syndrome etc. The school nurse also organizes visits with oral hygienist, optometrist, orthopaedic nurse and social workers for learners who require psychosocial support.	School Health Services (school based)
Occupational Therapist	The school-based Occupational Therapist's role and responsibilities include assessment and providing therapy to children with fine & gross motor difficulties and behavioural disorders at a special school setting. The OT also does the admissions of new learners, applications of schools and placement of school leavers in protective skills workshops.	School Health Services (school based)
Mental Health Nurse	The mental health nurse works in close collaboration with mental healthcare facilities under the DoH. The roles and responsibilities include working for the mental health review board as a healthcare provider and	Designated Mental Health Institution (participant works at the mental health review board)

	board member at the board. The mental health EXCO has a role to ensure that the rights of mental healthcare users are upheld. This process includes the perusal of documents when the mental health users are admitted in order to check for correctness, legality or any abuse. The main function is to protect the rights of the mental healthcare users. The mental health nurse also provides training with the lawyer and social worker to family support groups and Legal Aid SA.	
Medical Officer, working as a school health doctor primarily	The key roles include assessments, diagnosis and initiation of medication for children and adolescents with mental illnesses. The medical officer also provides training to the DOH professionals in facilities (medical officers and family physicians) to take over management of prescription (e.g. Ritalin) for children who are already on prescription and are stable. Children that are inattentive and hyperactive are referred to this medical officer and most of these children have ADHD and underlying psychological problems.	School Health Services (district based, the participant works across a number of schools in the district)

Participants' perceptions of their roles and responsibilities of CAMHS.

The roles and responsibilities of the key service providers of CAMHS demonstrate that none of these providers work in isolation, they all need each other as a multidisciplinary team to function and effectively provide services. It should also be noted that the roles and responsibilities of these service providers are similar in some cases, as evidenced by their description of the spectrum of conditions that they see in CAMH. For example, ADHD is seen by all the service providers, due to the large number of children who present with this and each service provider has their role to play, from assessment, management, to monitoring the children at schools. It is encouraging to note that, given the integral role of parents/caregivers and teachers of children play in the intervention of mental illness and behavioural conditions, that the roles and responsibilities of some of the service providers include providing information and raising awareness to parents and teachers about CAMH.

From interviewees' descriptions, the Department of Health and Education have separate professionals working with CAMH, albeit that they collaborate. In particular interviewees mentioned the school-based support teams for individual schools and in some instances, teams in education are district-based and serve a number of schools (such teams include psychologists, occupational therapists for example). It is unclear from these interviews just how widespread these school- and district-based teams are in the Department of Education, but based on the anecdotal reports from other forums, but from the work by Mokitimi (2018), it is clear that capacity is generally insufficient.

The perspectives of providers on the commonest CAMHS conditions they encounter.

This section provides a summary of a spectrum of mental illnesses and other conditions that are seen by key service providers working in CAMH and display a mix of behaviour disorders, learning difficulties and mental illness, all requiring a slightly different intervention approach. ADHD was stated as one of the commonest disorder that is managed by most of the service providers and featured in almost every interview. Service providers seem to cover the spectrum of the prevailing disorders as a collective, as their input range from providing health promotion and prevention services to mitigating behavioural disorders, substance and sexual abuse, early identification, diagnosis and management. Encouragingly the collective team also provide education and CAMH awareness to school teachers and parents/caregivers of the children. Not all service providers are based in the schools on a full-time basis (in fact only two of the interviewees were based in a special needs school), and not all are devoted full-time to school health services either, although the majority of the nurses and the doctors interviewed are dedicated to the school health service. Other service providers are responsible for assessment and management of these conditions in local primary health care facilities and other health care settings, including having a presence on the mental health review board, an important policy-setting and advocacy vehicle.

Participant's description of how CAMHS currently work in schools.

All the participants described their perceptions of how CAMHS works within the school health service and here in the WC Metro district, the service straddles the Departments of Health (DOH) and Basic Education (DBE).

In the DBE, schools are meant to have (or have) a school-based support team (SBST). The SBST in special schools is made up of the school health nurse (where these are school based), teachers in the school management team (head of departments), speech therapist, occupational therapist, physiotherapist and school counsellor or psychologist. In mainstream schools the SBST is formed by teachers from the school management team and learner support team. In theory they work closely with the clinical nurse practitioner (also known as school health nurse based at the primary health care facility) and school doctor. The school health nurse and doctor work across several schools. However, the SBST does not function so effectively in every school due to various barriers that will be explained later.

The service, as explained by the special needs school-based nurse and the school health nurses, indicate that the children with mental illnesses get assessed and receive medication and related interventions in mental health institutions such as The Red Cross Child and Family Unit, Tygerberg Child and Family Unit and Lentegeur Child and Family Unit. The school health nurse (school based

nurse) in special schools has to monitor the children on medication for various mental illnesses and other conditions (such as ADHD and epilepsy), but this mainly happens in special schools. The school health nurse also works with the mental health nurse and school doctor or psychiatrists in the tertiary hospitals. In full-service special needs schools, the teachers are trained by the professional nurses to administer medication to those learners in need, such as explained by one of the interviewees:

"We haven't…they haven't reported many challenges; because we have a very active special needs section in our department. We have some full service schools. We have some teachers trained, and we constantly train teachers…so you know. I think we've done a lot of work in terms of ADHD and so on…. because we have about forty full service schools…where there's…these teachers are constantly exposed to modern methods. We have special schools. Teachers are trained, and they are work shopped and so on and the ordinary schools…if there's a challenge, they refer the children to psychologists and social workers and nurses." MHDO.

Whilst this service is not comprehensively available to mainstream schools, it appears that the relationship with special needs full-service schools DBEs provide children from mainstream schools with some access to specialised assessment and care when needed, although the extent of the capacity versus the need for this service is not clear from the interviewee response.

Prevention and early identification

One participant from DOH and two from DBE mentioned that there is lack of awareness of CAMHS from teachers and this could impact on making appropriate referrals and intervention.

"Maybe we'd have to train teachers retrain teachers to deal with behaviour challenges. Lower level behaviour challenges, we can train teachers in all the schools…make teachers aware and a way to refer children to what's the first response how to treat children and so on" MHDO.

"What I was worried about is…that teachers weren't aware of mental health issues in children…so with the DBE we did sessions with teachers. We thought that would increase the referrals. It didn't help. So I don't know the answer…why these kids aren't…" MO.

Two participants from DOH described CAMHS as lacking in preventative services. A suggestion to improve this was made by the mental health district officer that the awareness of CAMHS should start from foundation phase teachers in schools to identify and intervene early.

"A greater part of the work should be preventative from grade... working with the Foundation Phase or teachers to find out the problems and eliminate them, as soon as possible. Rather than being curative, it should be preventative right and it should also be a facility that can cater for children who cannot continue cannot be in the schools. Is there any such a facility being planned?" MHDO.

"There is no preventive there. There is nothing. We all come when after. There is no after. You know I want to start a mindfulness project next year with kids. There is nothing really giving those children tools...for them to be able to survive where they are…without getting sick" SD.

The Referral System for CAMHS in school setting

Having screening and diagnostic services for children with mental illness is a good start, but not enough. Having the appropriate services to refer children for proper diagnoses, management and treatment and then having back-referral mechanisms is very important. Although the referral pathways between the different providers and services are not fully clear, a referral pathway emerged from the interviews that outlined how services and providers relate to one another with respect to CAMH (see Figure 1 for the referral process).

Aspects of the referral system starting with the SBST were described as follows:

"And so they identify children with problems and they decide what the best route is. So they initially have to make a plan at the school…when that is not working…then they have a meeting and they need to refer and they can refer either to the District Based Support Team…or to the doctor or to whatever. So I also get referrals from the School Nurses and I get referrals also from the DBST…which is the District Based Support Team. Each district…each educational district has got a psychologist and a social worker" SD.

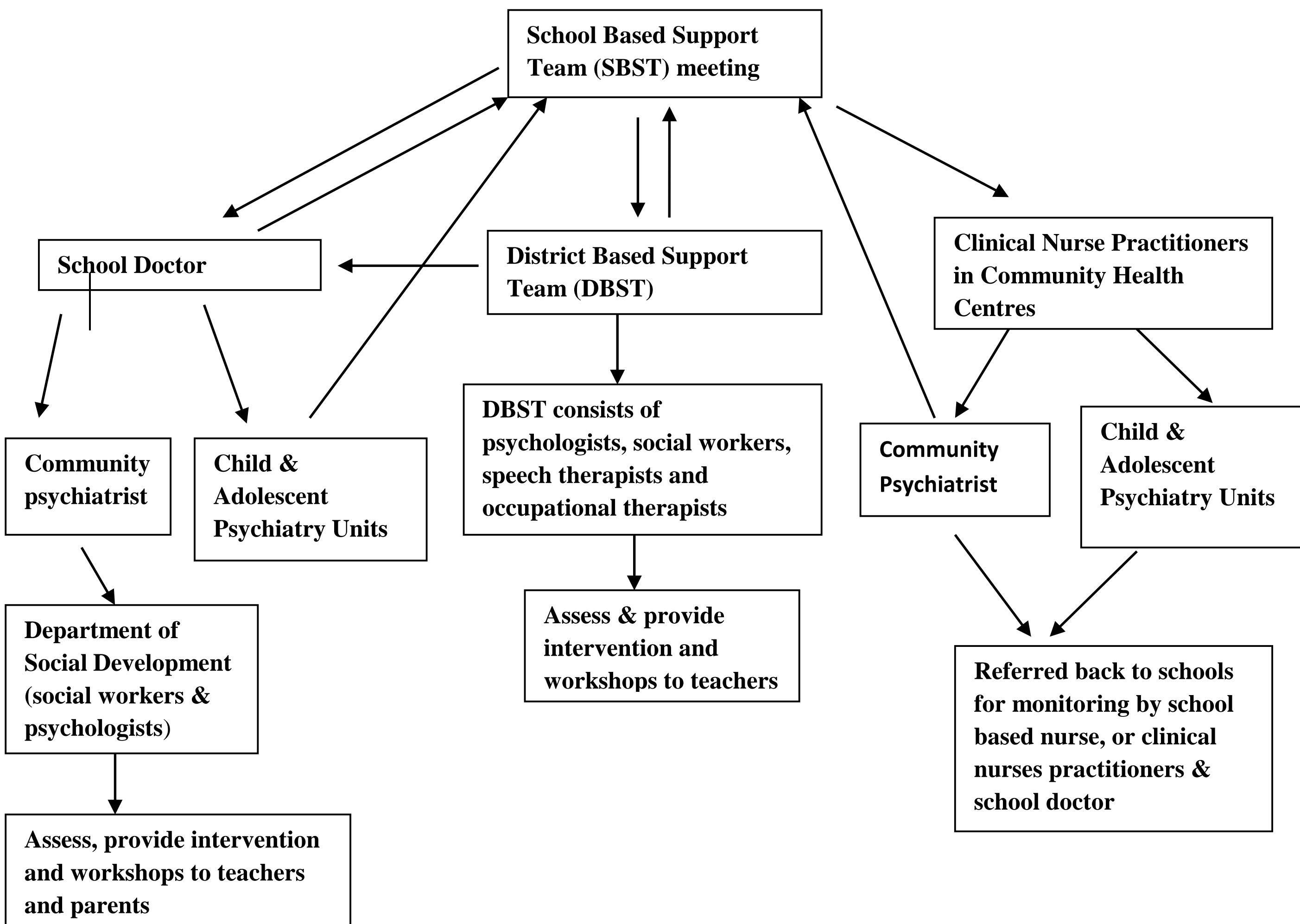
This process was confirmed by other interviewees of the School Based Support Team (SBST) referring children with mental illnesses to the school doctor and child and adolescent mental health units in tertiary hospitals. The school doctors provide mental health training sessions to teachers in mainstream schools to help them identify children with mental illnesses and know when to refer. Special schools make referrals through the school-based professional nurse to the school doctor or directly to mental health units in tertiary hospitals, while mainstream schools refer to the school doctor/primary health care facilities, which in turn refer to tertiary hospitals where the CAMH units are located. This process also requires parents and teachers to be involved from assessment to intervention. The school health nurse also arranges sessions with social workers to visit the school and provide psychosocial support to children in need of these services.

Encouragingly, two participants mentioned the existence of a referral pathway between the sectors DBE, DOH and Department of Social Development (DSD) given the importance of intersectoral collaboration and as espoused in the ISHP and the CAMH policy guidelines as well.

"A social worker, immediately as soon as we find out we phone the social worker…try and figure out what the problem is…like where's it coming from. Parents are called in and we discuss with the parents…what is the problem at home that you're experiencing what kind of home are you guys living in…what is the environment like?" SBN.

Participants from both DOH and DBE suggested that one way of improving referral system was to have all parts of the system improve their referral and administrative records and ensure that referrals reach the desired destination.

Figure 1: The referral system of CAMHS (generated from the study results)



Intersectoral collaboration

The provision of CAMH requires collaboration and co-ordination across a number of sectors, as CAMH requires services and interventions in a number of sectors, including health, education, social development, to name a few. All the participants had identified a number of important positive strides that have been made in intersectoral collaboration. It must be noted that within these positive strides some participants from DOH demonstrated mixed reactions and reported that intersectoral collaboration needs to be strengthened.

In particular participants from DOH and DBE together referred to collaboration between three key sectors namely DBE, DOH and DSD. All participants from DOH reported that the DOH has formed joint programmes between DBE and DSD for children presenting with behavioural disorders in

schools. Participants expressed appreciation for the co-operation between the DOH and DBE. One of the participants from DOH particularly mentioned the policy developed by the DBE for behavioural and educational intervention and programmes in schools and how this facilitates referring to and working with DOH health service providers.

"Well we collaborate with Learner Support Teacher and we collaborate with social workers…Department of Social Development. We have joint programmes and joint plans but I think we have just recovered from a previous dispensation, where there wasn't a clear commitment. We have now, we are moving in the right direction where we're trying to mobilise our resources to help as many children. For example, that one boy who we placed in Social Services facility if we didn't have a relationship with the Social Services Department, the boy wouldn't have been placed there. We got the boy placed there" MHDO.

In contrast to this positive experience of collaboration, other participants cited barriers to intersectoral collaboration and reported that there was minimal to no integration of services between sectors.

"There is nothing integrated. There is nothing…we're working like…but that is also changing so we have got few workshops and meetings with Child Family Unit and with the LAU so it also changing but it is very fragmented very insufficient…very after" SD.

Participants had some suggestions of how to improve intersectoral collaboration and these included: forming effective links between key sectors, namely the DBE, DOH and DSD and families need to be included in these links. Mental health services should be integrated from the community level and have all key sectors collaborating together. Participants also suggested strengthening relationships with the NPO and NGOs with whom they work in the CAMH context. Service providers working in these key sectors were also suggested to receive continuous training on CAMH to improve awareness, skills and service provisioning.

Importance of Multidisciplinary Teams (MDT)

Whilst collaborating across sectors is essential, collaborating and working together across various disciplines is equally important. A strong MDT is essential for the management of mental illnesses and behavioural disorders and this necessity was recognised by all participants. They encouragingly reported on the existence of a MDT between the three sectors of DBE, DOH and DSD. Participants from both DOH and DBE reported negative and positive strides of working in an MDT and these included the active multisectoral MDT forums in their respective sub-districts and the involvement of other service providers such as the South African Police Service (SAPS). The MDT meets quarterly in forums to discuss critical mental illness cases and other unresolved cases in CAMHS including pending referrals and administrative barriers.

"The MDT between these key sectors consists of the following: school teachers, school doctors, mental health nurses, school nurses, clinical nurse practitioners, occupational therapists, social workers and psychiatrists" SD.

The following quotes illustrate the facilitating factors of for the MDT in CAMH as reported by interviewees:

"It really depends on the forum but the forums that I've been in that have really worked have been social development, education…including the school doctors and nurses…the mental health nurses community psychology…family physicians…ag you know district management and facility managers kind of pop in now and then but they're not really particularly useful. District psychiatry so that's me and SAPS sometimes comes which is really amazing" CP.

"also where the forum has helped is I met…I'm working for the DOH but I met the mental health nurses for the first time at the forum so if it's like that for me…then I would imagine in other areas it's the same…that we all work in these silos…and now I have the mental health nurses on Wapp…and we Wapp each other if there's a problem…you know it's just a closer working together. So I think these forums helped a great deal…because without these forums…we wouldn't know about the NPO's that we could refer to…we would just be going...I don't know. So I think in our country where we have limited resources…if we don't have these multi- sectoral working together and even in the private sector needs to come on board" MO.

Despite some positive strides, barriers to MDTs exist.

Despite the recognition for, and existence of an MDT, the team does not function properly yet as it is not easily accessible to its users and a lot of strengthening is still needed. For example, one of the participants from DOH stated the following:

"As you said it, it's that MDT thing. It would be very nice just to have kind of ready access….and I do think some of it is that psychologists, OT's...some people see children as a bit more specialised and different. And so for example, your average clinical psychologist hanging out in the day hospital, might not want to see kids, as readily. So, it's almost about just having a…child aware and friendly service, is what I'm saying. So, it could never be exclusively for children. We don't have the specialist skills for that….so we really would benefit from a multi-disciplinary team…that would be keen to see kids...or, just not be afraid to" CP.

This suggests that the composition and numbers of MDTs are not ideal. Participants suggested that a fully functional MDT should include: an adequate number of educational psychologists, child psychiatrists, school doctors, speech therapists, occupational therapists, school health nurses and

social workers. However, as there are very few specialists working in CAMH in all key sectors and a huge workload leading to poor functioning of the MDT, the current reality of MDTs in CAMHS in not the same as in theory. Three of the key providers suggested the need to have improved resources such as additional staff, facilities and equipment to have a functional MDT and thus have CAMHS easily accessible to children.

"Services for children are very minimal…even sometimes children might display behavioural problems….and it might not be a mental health issue…example with your speech…we don't have speech therapists…we don't have occupational therapists on this level…primary level…so sometimes there are things that can be addressed…that's not mental health issues…but leading to frustration…low self-esteem…resulting in the child acting out…it's physical problems that need to be attended to" CNP 1.

"The problem is very few schools have a functional SBST… school based support team …or the people in the school based support team don't actually have the knowledge and the skills….and schools only have the DBE…has school psychologists, school social workers…but every school psychologist has about thirty schools…and every social worker has thirty schools…so they really can't do any one on one interventions" MO.

Facilitators and barriers of CAMHS

Participants expressed both negative and positive strides of CAMHS in the school health services and some provided suggestions to strengthen these services.

Lack of CAMH awareness

Three participants from DOH reported that there is a lack of awareness of CAMHS from the management in DOH thus this leads to the neglect of CAMHS. The participants also described that physical illnesses get prioritised more than mental health, when it comes to school health services and CAMHS. The lack of awareness also exists in the DBE and DSD sectors. Participants from both DBE and DOH identified that parents have very limited understanding of CAMHS and lack of knowledge about their children's conditions and intervention. An example of this was described by one of the participants from DOH where an interview was done with a parent who was just happy that the child is seeing a doctor at the clinic but did not know the diagnosis and medication, just knew that the child gets a magic tablet that tones him down.

"Well she didn't have an understanding about what the problem was. She never had a clue. She just closed the facility down, because she had no interest and no knowledge of this thing. She wrote this book here…that's her name…doesn't even mention behaviour challenges. She doesn't even have an understanding. She thinks she's in Europe or somewhere you know" MHDO.

"*The DBE also has a White Paper 6…which is all about Inclusive Education…so these children are supposed to be helped by the school…and included in the class. The problem is it's great on paper…but it doesn't work if you have a class of forty-five children…and a huge percentage of the children in the class have learning barriers…mental health problems… you can't. I know it paints a terrible picture but you know mental health...is always the lowest priority…for most departments…and then child mental health is even lower… I think there are more services for physical problems. Mental health is always seen as ah…it's not a real illness. It's ignored because people don't die suddenly*" MO.

Lack of trained staff:

Participants also asserted that there is lack of CAMH trained staff (limited specialists) in all key sectors of CAMHS namely DOH, DBE and the DSD. It was also identified by three participants from DOH that there is inadequate specialist skills in the DOH for delivering efficient CAMH services. Two participants (school based nurse and mental health district officer) from the DBE sector also mentioned that additional training to workers in DBE sector is needed for them to effectively manage children with behavioural disorders.

"I'm not sure why it hasn't happened. I mean I suppose there aren't many sub specialists…you know Senior Registrars in child and adolescent psychiatry…maybe to cover the clinics….so get that…everybody's under resourced…ja that would be the main thing" CP.

Adult services reluctance to see children:

Participants from the DOH reported that some mental health staff are not comfortable seeing children with mental illnesses and some are trained but still reluctant to see this population.

"The Mental Health Sisters don't want to see children? They won't initiate treatment. They can't initate treatment…and generally they say they don't feel comfortable …even some Registras…they refuse to see children because they say they don't feel comfortable with children" SD.

"*There was nothing at Karl Bremmer, so I would refer to Child and Adolescent at Tygerberg…and some of our mental health nurses, were pretty good at that stuff…but it was a few pockets of them, who were interested…and then they'd run special child clinics. But mostly behaviourally disturbed children…nobody wants to see them*" CP.

"Well this is the thing which we've realised now….is that a lot of our mental health nurses are not comfortable seeing children...mostly because they don't get referred…which is another thing that would be great if we could look into it. At the moment from Nomsamawandle in the Helderberg…Mfuleni… which is also my area…I have zero children referred to me. None have been referred to me. I can't remember the last time I had" MO.

Inadequate referral pathways

The referral pathway alluded to earlier had both positive aspects, as well as shortcomings that require attention.

Two participants from both DOH and DBE described the CAMH S as "lacking "appropriate referral pathways at each level", starting from primary to tertiary level and between schools and health services. They also indicated that schools sometimes make 'inappropriate referrals' to the specialists, as illustrated below.

Protocol requires that referrals to DOH and DSD must be made formally by the SBST. Instead, some referrals are made by individual teachers or by word of mouth. A limited understanding of CAMHS by teachers also impact on the referrals, as some teachers would not refer when necessary or refer inappropriate cases.

"So schools refer to me when they want a child to be on Ritalin. So any child that is hyper active or inattentive gets referred to me. A lot of them do have ADHD but a lot of them don't. So sometimes the referrals are inappropriate, and the children have a cognitive problem…and the school system isn't suited to deal with their cognitive problems or learning difficulties" MO.

Therefore, this shows that the system in the DBE to identify children with cognitive or learning difficulties does not work adequately and so every child is identified as having a mental health issue, which is not always the case.

"The challenge is usually the fact that sometimes the schools don't follow their protocols…but they need to…their referral pathways…and then come straight to me and that is often a challenge because I have a psychiatry background…I will end up assisting. Lately I've tried more and more to put them on the right track. …tell them which way to go" CNP 1.

"You see the problem is that they will refer everything that is hyper…or which got attention deficit. Which means we see all the traumatised kids…all the children with ADHD? We see all the children who are abused or neglected. We see a lot of the kids who are malnourished…those that are less" SD.

Discussion

Mental health needs have been recognised to represent a significant proportion of the global burden of diseases and are considered to be a greater burden in children and adolescents (Mokitimi, Schneider and de Vries, 2019). Despite its recognition as a critical public health challenge globally, CAMHS is not given the urgency it requires in policy agendas globally, including LMICs (Draper et al, 2009; Kleintjes et al (2010). The school setting is one of the best places to provide mental health needs to enrolled children and adolescents, as it has the potential to reach out to large numbers of children that may not have access to services outside the school setting (Omoeva et al, 2011 in Fazel et al, 2014). Furthermore, schools are an essential setting for health promotion and addressing key child and adolescent health issues, including mental health. This is so, as children and adolescents spend a significant number of days per year, and years of their early life in school. The schooling years are important formative years and the direct link between health and education during these years have significant implications for children's overall well-being and their educational progress (ISHP, 2012).

This study sought to obtain key stakeholders' perspectives and experiences of CAMHS in schools in the Western Cape. Data was collected from key health service providers who work in CAMH. This study sought to better understand CAMHS in the school setting and drew on the perspectives of nine key informants to gain such insight.

The study highlighted a functional CAMHS in the WC Metro district, albeit still limited by a number of barriers and shortcomings. This suggests that mental health and specifically CAMH is receiving good attention in the Western Cape Metro district, albeit not sufficient and focused more on diagnosis and treatment, versus prevention and ongoing support, as described by a number of the interviewees. A service exists that starts in the school and through an established referral pathway is able to connect with district-based and specialist CAMHS located in tertiary hospitals.

The key informants raised a number of important aspects on the strengths and the barriers to how CAMHS currently function and made a number of suggestions on how to strengthen the service. These included improving intersectoral collaboration, following the correct referral pathway, early identification of children with mental illness, and the importance of MDT. Findings also suggested a greater need for awareness of CAMH amongst all role players, including parents and caregivers, and this may go some way to increasing the priority of CAMHS in all sectors.

The suggestion by interviewees to strengthen intersectoral collaboration between the key sectors health, education and social development as a strategy to enhance the awareness of CAMHS and access to its services is in keeping with the findings from other studies by Juengsiragulwit, (2015) and Mokitimi et al, (2019). The necessity of strengthening intersectoral collaboration for integrated CAMHS was also emphasised in a study by Babatunde et al (2019).

The general lack of awareness of CAMHS and poor early identification of mental illness is not unique to this study setting, but was also recognised as important factors in improving barriers to CAMHS access in other LMIC settings (Babatunde et al, 2019). Poor intersectoral collaboration, limited resources and integration of services were also recognised as needs to improve barriers to CAMHS for South Africa as a whole Mokitimi et al (2019). A study by Scott & Graham (2016) on stakeholders and their perceptions of school based mental health services found that educators (teachers) play a critical role and have a significant impact on the service delivery of evidence based practice. Stakeholders reported on the need to improve awareness of child and adolescent mental health within schools. For CAMH to properly function in schools, educators (teachers) expressed the need for continuous training on mental health conditions and services (Scott & Graham 2016). These findings were echoed in a study by Oshodi (2013) on the perceived needs of stakeholders on school mental health in districts of South-west Nigeria. Oshodi (2013) also reported that many educators (teachers) were found to have low levels of awareness and understanding of mental health principles. However, there were some educators who had good understanding of mental health services and this includes the mental health illnesses and referral pathways (Oshodi,2013). Adelman (2006) suggests that there is a necessity to include school stakeholders in the planning of CAMHS as they have their own perceptions of service delivery. While this study did not explore the perspective of educators, this aspect is indeed critical to the improved provision of CAMH services in the school setting and requires further research on the role of educators in the provision of CAMH in the South African setting.

The general neglect of CAMHS in all key sectors, compounded by the lack of trained staff, inadequate capacity and referral pathway barriers confirms CAMHS as a largely neglected area within mental health (Babatunde et al, 2019; Mokitimi et al, 2019). These barriers are of concern and pose a threat to the delivery of CAMHS in schools despite schools as important settings that hold great potential for the early identification and management of CAMHS.

Some strategies for how to improve CAMHS emerged. Intersectoral collaboration, which featured very prominently in this study, is regarded as a key factor in the successful delivery of CAMHS and one that can be used to enable the promotion and advocacy of CAMHS to improve its priority (Kleintjes et al, 2010; Kieling et al, 2011). If coupled with the provision of training and continuous skills development in CAMH, the attitudes of those who work within this area, including leaders in the various sectors could be improved (Babatunde et al, 2019). According to Patel et al (2008) the involvement of tertiary institutions plays a critical role in improving the priority of CAMHS by providing evidence-based research and training to mental health professionals for continual development.

Whilst health resources are generally sparse in LMICs, the limitation of resources for CAMH in particular has been widely reported as one of the main barriers to CAMHS in LMICs (Patel et al, 2008; Kleintjes et al, 2010; Mokitimi et al, 2019). One way of addressing staff shortages is that of task-shifting, given the huge shortage of specialists in CAMHS, as was the finding in the WC Metro as well (Kleintjes et al, 2010; Juengsiragulwit, 2015; Babatunde, 2019; Mokitimi et al, 2019). In this study, the importance of multidisciplinary teams (MDT) and dedicated health workers was identified as one of the facilitators of CAMHS. These findings are suggestive of possible approaches and interventions that could be used to improve CAMHS policy development and strengthen service delivery, as also posited by others who suggested intersectoral collaboration, motivating health workers and strengthening MDT as essential to the improvement of CAMHS (Juengsiragulwit, 2015).

Beyond official government sectors, NGOs and Non-profit Organisations (NPOs) are seen as important in the improvement of access to services within communities, especially in resource constraint areas such as rural areas (Flisher et al, 2012).

The findings obtained from this study included negative and positive aspects of experiences of key health providers CAMHS. Based on the data obtained on this study it can be acknowledged that there is still an urgent need to address CAMHS in South Africa, in schools and in health facilities alike. It suggests that CAMHS still receive low priority in comparison to other health issues such as HIV/TB in South Africa. Spanning boundaries across disciplines and across sectors is key to the success of CAMHS provision and, whilst multisectoral collaboration between health, education and social development has been highlighted as one of the critical approaches to improve access to CAMHS, the role of NGO/NPOs and the involvement of parents and caregivers are critical elements in enabling access and promotion of CAMHS in communities and schools.

Study Limitations

The sample, albeit representative of a spectrum of different CAMHS providers was small and may have benefitted from interviewing a wider spectrum of participants, or more than one participant in a given category of health service provider. However, the wide spectrum of participants across different parts of the health system compensated for this. The study only focused on public sector schools and in the urban Metro setting, so the perspectives of health service providers working in other contexts may be different. The study had certain limitations, which often arises when conducting a secondary analysis. In this study, the perspectives of staff working in schools in the education sector were not obtained and that is the gap that should be addressed through further research.

Conclusion

This study focused on exploring the perspectives of health service providers of child and adolescent mental health services of public sector schools in the Western Cape. The study described the perspectives of CAMH service providers in relation needs, barriers and facilitators for CAMHS in Cape Town. The findings of this study provide potential strategies and approaches that can be used to develop integrated CAMHS in Western Cape. The findings of this study may also reflect the same needs, barriers and facilitators in other provinces of South Africa, but this requires further investigation. Intersectoral collaboration, a strong MDT, continuous training of teachers and health professionals are potential strategies that could be used to strengthen access to integrated CAMHS in the Western Cape Province and beyond.

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PART C: APPENDICES

Appendix A: Plagiarism Declaration

Plagiarism Declaration

"This thesis/dissertation has been submitted to the Turnitin module (or equivalent similarity and originality checking software) and I confirm that my supervisor has seen my report and any concerns revealed by such have been resolved with my supervisor."

Name: Khusela Mgoqi

Student number: MGQKHU001

Signature: Signature Removed

Date: 04/03/21

Appendix B: Ethics Clearance Letter

Faculty of Health Sciences
Human Research Ethics Committee

Room E53-46 Old Main Building
Groote Schuur Hospital
Observatory 7925
Telephone [021] 406 6626
Email: Olivia.langenhoven@uct.ac.za
Website: www.health.uct.ac.za/fhs/research/humanethics/forms

06 November 2019

HREC REF:754/2019

A/Prof Maylene Shung King
Division of Nephrology & Hypertension
E13
NGSH

Dear A/Prof Shung King

PROJECT TITLE: EXPLORING THE PERSPECTIVES OF HEALTH SERVICE PROVIDERS ON MENTAL HEALTH POLICY AND INTERVENTIONS FRO SCHOOL-CHILDREN IN THE WESTERN CAPE, SOUTH AFRICA (MASTER'S DEGREE - MS K MGOQI) (SUBSTUDY LINKED TO 188/2016)

Thank you for submitting your new study the Faculty of Health Sciences Human Research Ethics Committee for review.

It is a pleasure to inform you that the HREC has **formally approved** the above-mentioned study.

Approval is granted for one year until the 30 November 2020.

Please submit a progress form, using the standardised Annual Report Form if the study continues beyond the approval period. Please submit a Standard Closure form if the study is completed within the approval period.
(Forms can be found on our website: www.health.uct.ac.za/fhs/research/humanethics/forms)

The HREC acknowledges that the student: Ms K Mgoqi will also be involved in this study.

Please quote the HREC REF in all your correspondence

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please note that for all studies approved by the HREC, the principal investigator **must** obtain appropriate institutional approval, where necessary, before the research may occur.

Please quote the HREC REF in all your correspondence

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please note that for all studies approved by the HREC, the principal investigator **must** obtain appropriate institutional approval, where necessary, before the research may occur.

Yours sincerely

PROFESSOR M BLOCKMAN
CHAIRPERSON, FHS HUMAN RESEARCH ETHICS COMMITTEE
Federal Wide Assurance Number: FWA00001637.
Institutional Review Board (IRB) number: IRB00001938
NHREC-registration number: REC-210208-007

HREC REF 754/2019

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use: Good Clinical Practice (ICH GCP), South African Good Clinical Practice Guidelines (DoH 2006), based on the Association of the British Pharmaceutical Industry Guidelines (ABPI), and Declaration of Helsinki (2013) guidelines.

The Human Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.

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Appendix C: Table of results illustrating themes extracted from key informant interviews.

Summary of themes indicating perceptions of NEEDS by key informants on child and adolescent mental health services

Overarching theme	Sub-themes	Quotes
Need to improve Intersectoral collaboration	Effective integration between sectors	*"There has to be a link with Social Services. There has to be a link with Education. There has to be a link with therapists."* **[SD].** *"So I think in our country where we have limited resources…if we don't have these multi- sectoral working together and even in the private sector needs to come on board because Ukukhanya…what they've done…that's the NPO that does counselling in Helderberg."* **[MO].**
Need for a proper referral pathway	Appropriate referral pathways at each level	*"I don't mind building the relationship with Lentegeur Hospital, but to have the proper referral system that everyone's aware of it doesn't have to be that…I have to keep asking every time…remind them…remember this child…remember that child…they follow up."* **[OT].** *"The challenge is usually the fact that sometimes the schools don't follow their protocols…but they need to…their referral pathways…"* **[CNP1].**
Need to improve awareness of CAMH services	Provide training to teachers and parents	"*Maybe we'd have to train teachers retrain teachers to deal with behaviour challenges. Lower level behaviour challenges, we can train teachers in all the schools...make teachers aware and a way to refer children to what's the first response how to treat children and so on."* **[MHDO].**

		"From the black communities I don't get referrals and I'm not sure why... So there are various theories. Teachers will say to me parents don't want their children put on Ritalin. My feeling is that it can't just be that...because if you speak to the mental health nurses….at the three facilities in Khayelitsha…they don't get any referrals for any child mental health problems either….so where are these children…they are there...but they're being missed. What i was worried about is…that teachers weren't aware of mental health issues in children" **[MO].**
The need for strong multidisciplinary team (MDT)	Easy access to child aware MDT	"*As you said it, it's that MDT thing. It would be very nice just to have kind of ready access….and I do think some of it is that psychologists, OT's...some people see children as a bit more specialised and different."* **[CP].** *"What I see is simply fragmented…not talking to each other…grossly insufficient mostly tertiary service…and very little at community base."* **[SD].** *"We need to work together…because what we found with the forum is often there's duplication…often we're blocking services….you know the tertiary services is a specialised service where it could be dealt with at primary care level and also a lot of task shifting needs to happen."* **[MO].**

Preventive Services	Improve preventive services in schools	*"There is no preventive there. There is nothing. We all come when after. There is no after. You know I want to start a mindfulness project next year with kids. There is nothing really giving those children tools...for them to be able to survive where they are…without getting sick."* **[SD].** *"A greater part of the work should be preventative from grade... working with the Foundation Phase or teachers to find out the problems and eliminate them, as soon as possible. Rather than being curative, it should be preventative right and it should also be a facility that can cater for children who cannot continue cannot be in the schools. Is there any such a facility being planned?"* **[MHDO]**.

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Summary of themes indicating barriers and facilitators of CAMHS

Overarching theme	Sub-themes	Quotes
Neglect of CAMH services in DoH and DoE	Poor awareness of CAMHS	*"But that's why you need a dedicated facility, for those unique high end cases…you need a dedicated facility…like the one we had at the "Die Bult". It was just closed down by the Head of Education bang without any consideration for anything. Well she didn't have an understanding about what the problem was. She never had a clue. She just closed the facility down, because she had no interest and no knowledge of this thing."* **[MHDO].** *"I think Child and Adolescent Psychiatry is neglected and I think people working on the ground floor...mostly do not want to work in Child and Adolescent psychiatry"* **[MHN].** *"What I was worried about is…that teachers weren't aware of mental health issues in children…"* **[MO].**
Negative attitudes towards CAMH	Nurses and doctors have limited interest in CAMHS	*"I mean there's absolutely no awareness of the needs of the children. And there is not an attitude to actually help them. There is not. I think the people in the Day Hospital they need to actually be retrained"* [**SD**]. *"There was nothing at Karl Bremmer, so I would refer to Child and Adolescent at Tygerberg and some of our mental health nurses, were pretty good at that stuff but it was a few pockets of them, who were interested and then they'd run special child clinics. But mostly behaviourally disturbed children nobody wants to see them."* **[CP].**

Limited resources	Inadequate resources allocated to CAMHS	"*There isn't a facility, and there aren't any resources that's dedicated to this…so I'm glad that you are actually focusing on a situation that is just…where you'll be able to explain what the nature….and the extent of the problem*" **[MHDO]**
		"But every school psychologist has about thirty schools…and every social worker has thirty schools…so they really can't do any one on one interventions" **[MO].**
Inadequate capacity	Lack of training in CAMHS	*"The Mental Health Sisters don't want to see children. They won't initiate treatment. They can't initiate treatment and generally they say they don't feel comfortable…even some Registrars…they refuse to see children"* **[SD]** *"And you know what they also don't really give us is the…like I did the basic psychiatry course. That was in 2003 I think or long time ago but they don't offer us updates*." **[CNP 1]**.
Administrative barriers	Poorly functioning referral pathway	*"Often just the information burden on the forms and then it's just an administrative thing where you have to find the form…you have to fax the form. The fax doesn't go through…"* **[CP].** *"I think the challenges we have at the child and family…Dr…spoke to us once. You know there are people that blocks entry to their services many a times….and many a time it's the clerks. The clerk will find a nitty little nonsense not to let the child come in. Like for instance, the person failed to say male or female on the form"* **[MHN].** *"And also the doctors, they never give feedback...whether we have referred the learners to them or they've been there for appointments...on what they've done to the child and how we now supposed to look for...and watch for...we don't get any*

		feedback from the doctors and clinics and hospitals. You would refer a child with a referral letter, but you don't get anything written down. You must just get it from the parent an d it's not supposed to be like that" **[SBN].**

Summary of themes indicating the facilitators of child and adolescent mental health services

Overarching theme	Sub-themes	Quotes
Intersectoral collaboration	Collaboration between sectors	*"Well we collaborate with ELS…and we collaborate with social work...Department of Social Development. We have joint programmes and joint plans."* **[MHDO].** *"For me what's been really great is, engaging with education. So education has now come up with this really clear policy, about behavioural and educational issues at school."* **[CP]**.
	Involvement and support from NGOs and NPOs	*"You know that there's some NGO's out there that do parental guidance stuff."* **[CP]** *"Sometimes when we have talks with the other NGO's, like we've got here at the back. There was a time when we were working somewhere together they had a lay social worker…she would come and give talks about these…drug abuse…sex….the violence on girls….and you know even boys…just to make them aware…and giving them some facts as to how to be careful."* **[SBN**].
	Active intersectoral forums	*"But the forums that I've been in that have really worked have been social development, education…including the school doctors and nurses…the mental health nurses…community psychology…family physicians"* **[CP].**

		"So I think these forums helped a great deal….because without these forums…we wouldn't know about the NPO's that we could refer to" **[MO].**
Involvement of tertiary institutions in CAMHS	Support and training from tertiary institutions	*"I have organised for the children on the Klipfontein area, I get the UCT students to do it at Vangate…and the children from the Mitchells Plain area Mitchells Plain now they have a walk in clinic"* **[SD].** *"They do invite us. Child…the child and health psychologists…what is this in Rondebosch? We do get like an invite. They do send us like an invite when they do have updates but it's not…it's sometimes you know…the same day that we have something else on…another programme but they do send us that…"* **[CNP 1].**
Dedicated health workers in CAMHS	Passionate CAMHS health workers	*"I just have a passion for what I do….my passion drives me…and I've worked twenty one years…it's also a personal thing"* **[CNP 2]**. *"Well there are community workers based at the school… which are actually quite useful. They are doing a lot of health promotion. Some of the community workers at the schools…they act as nurses, surrogate mothers…mental health counsellors…they do all sort of things (Laughter) Some of them are fantastic….really…but that is also not acknowledged"* **[SD].**

Appendix D: International Journal of School Health Instructions for Authors

International Journal of School Health

Guide for Authors

Aim and Scope:

International Journal of School Health (IJSH) is aimed at promoting scientific communication among medical and public health investigators worldwide. IJSH, which benefits from an international editorial board, is published quarterly by Health Policy Research Center, Shiraz University of Medical Sciences. Contents include peer-reviewed research papers covering different aspects of public health, and health policy; critical reviews, commentaries on controversial issues in school and school-age children's health and case reports.

IJSH publishes original clinical research articles, short communications, review articles, editorials, letters to the editor, and case reports. Contributions in any of these formats are invited for editorial consideration following peer review by at least three experts in the field.

Contents include peer-reviewed research papers covering different aspects of public health, and health policy; critical reviews, commentaries on controversial issues in school and school-age children's health and case reports.

Editorial Independence

All editor-in-chiefs and associate editors as well as the reviewers of International Journal of School Health are completely independent from the publisher and free to make decisions without any interference from the owners of their journals or their publisher.

Processing Fee Policy

This journal has no article submission or peer review processing charges and also does not charge authors for accepting articles.

Since International Journal of School Health does not have article processing charges and publication fees, the authors are asked to transfer the copyright of accepted manuscripts and also publishing right to the Journal.

Online Submission

The Journal accepts manuscripts only through the online submission system, easy to use and easy to track, thus the submission will be done rather faster by electronically submission.

Scientific and Initial Screening:

Once you submit an article, it will be forwarded to one of the editors and afterwards to at least two peer-reviewers. At once after submission, the author will be notified of the both submission process via the

email and the follow-up ID code. It is recommended to save the sent ID code for all the next correspondence regarding each article, separately.

Peer-Review Process:

- All submitted manuscripts are subjected to the external peer review and editorial approval.

- Articles will be sent to at least 3 independent reviewers in the related field.

- Normally, the reviewers are blinded to the authors' identities and their affiliations while the associate editors have full access to them.

- Authors are usually notified within 2-3 months about the acceptability of their manuscript.

- Reviewers are selected based on their expertise within the topic area of the submission, and their purpose is to assist the authors and the journal by providing a critical review of the manuscript. To apply be a reviewer in our journal, please send your request with your resume to **schoolhealth.j@gmail.com**. The editorial board of the journal will review your resume and will be in contact with you.

- After receiving the reviewers' comments, authors are requested to send the revised article and a copy of their reply to the reviewers including the comment and explaining the replies to the questions and the changes made to the revised version. The communication regarding a specific manuscript will be done only between the journal and the designated corresponding author.

Ethical Considerations:

The Journal is a member of the Committee on Publication Ethics (COPE). COPE's flowcharts and guidelines are approached in confronting any ethical misbehavior. The Journal also follows the guidelines mentioned in the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals issued by the International Committee of Medical Journal Editors (ICMJE).

Authorship:

Based on the ICMJE recommends that authorship criteria are as below:

1. Substantial contributions to the conception or design of the work, or the acquisition, analysis or interpretation of data.

2. Drafting the work or revising it critically for important intellectual content.

3. Final approval of the version published.

4. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

In addition to being accountable for the parts of the work he or she has done, an author should be able to identify which co-authors are responsible for specific other parts of the work. In addition, authors should have confidence in the integrity of the contributions of their co-authors. All those designated as authors should meet all four criteria for authorship, and all who meet the four criteria should be

identified as authors. Those who do not meet all four criteria should be listed in an Acknowledgements section. Participation solely in the acquisition of funding, the gathering of data, technical help, writing assistance, and general supervision of the research group does not warrant authorship. Financial and material support should also be acknowledged. Please guarantee that anyone stated in the Acknowledgements section has granted its clearance for permission to be listed.

Authorship Statement

An authorship statement is required for every manuscript submitted and should state who has contributed what to the planning, conduct, and reporting of the work described in the article.

Conflict of Interest:

A competing interest exists when professional judgment concerning a primary interest (such as patients' welfare or the validity of research) may be influenced by a secondary interest (such as financial gain - employment, Consultancy, stock ownership or options, honoraria, patents, and paid expert- testimony or personal relationship). There is nothing unethical about a competing interest but it should be acknowledged and clearly stated. All authors must declare all competing interests in their covering letter and in "Competing Interests" section at the end of the manuscript file (before the references). Authors with no competing interests to declare should obviously state that.

Authors are preferably asked to fill the uniform disclosure form available through:

(http://www.icmje.org/coi_disclosure.pdf)

Copyright:

If a manuscript contains any previous published image or text, it is the responsibility of the author to obtain authorization from copyright holders. The author is required to obtain and submit the written original permission letters for all copyrighted material used in his/her manuscript. Since International Journal of School Health does not have article processing charges and publication fees, the authors are asked to transfer the copyright of accepted manuscripts and also publishing right to the Journal.

Open Access Policy:

This journal provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

Language and Style:

Contributions should be in either American or British English. The text must be clear and concise, conforming to accepted standards of English style and usage. Non-native English speakers are advised to seek professional help with the language.

Abbreviations should be standard and used just in necessary cases, after complete explanations in the first usage. The editorial office reserves the right to edit the submitted manuscripts in order to comply with the Journal's style. In any case, the authors are responsible for the published material.

Requirements for Different Types of Articles

Original articles:

Research Articles also are called "Original Articles", which are considered as the common types of articles. The content of the paper must justify its length.

Abstract: A structured abstract is required including these headings:

- **Background**
- **Methods**
- **Results**
- **Conclusions**

Full Text:

For the original research, traditional sections are required including:

- **Background**
- **Objectives (optional)**
- **Methods**
- **Results**
- **Discussion**
- **Conclusion**
- **References**
- **Acknowledgments**

In the full text of an original article, the maximum number of:

- **References** are: **40**
- **Illustrations or tables** are **5**

Clinical trials: The format is similar to original articles. However, the CONSORT flow diagram should be added as a figure. RCTs should be registered at any RCT Registry approved by the WHO and their registration number should be mentioned in the title page. RCTs done in Iran must be registered at www.irct.ir.

Brief Report:

- Short manuscripts definitively documenting either experimental results or informative clinical observations will be considered for publication in this category.
- Brief Reports **are not intended** to allow publication of incomplete or preliminary findings.
- The review process is equally rigorous as for Regular Articles and the acceptance rate is lower.

- Another name of this type is "Brief communication"

Abstract:

Abstracts must not exceed 200 words and should be a single paragraph with no subheadings.

Full text:

Brief Reports may not exceed 1,200 words of text -counting only:

- **Introduction**
- **Methods**
- **A combined Results and Discussion section**
- **Acknowledgements**
- **Authorship Contributions**
- **Disclosure of Conflicts of Interest**
- **References**

- In a brief report, the **maximum number** of:
    - **Tables or figures are 2**
    - **References are 20**

Case reports:

A case report is a case study, case report, or other description of a case that should contain a structured abstract. In the other meaning, clinical presentations that may be followed by evaluative studies that eventually lead to a diagnosis.

Abstract

Abstract of Case reports should comprise the below sections:

- **Introduction**
- **Case Presentation**
- **Conclusions**

Full Text

Full text of a case report includes:

- **Introduction**
- **Case Presentation**
- **Discussion**

- In a case report, the maximum number of:
  - **Tables or figures** are **2**
  - **References** are **10**

Review articles:

State-of-the-art reviews tend to address more current matters including a review of the literatures. This type of article summarizes the current state of understanding on a topic. A review article surveys and summarizes previously published studies, rather than reporting new facts or analysis.

Abstract:

The structured or unstructured abstract of a review article contains the below headings:

- **Context**
- **Evidence Acquisition**
- **Results**
- **Conclusions**

Full Text:

The full text of a review article contains the below sections:

- **Context:** It includes 1 or 2 sentences describing the clinical question or issue and its importance in clinical practice or public health.
- **Evidence Acquisition:** This section describes the data sources, including the research strategies, time of the study, and other sources of the used materials, such as subsequent reference searches of retrieved articles. It explains the methods used for quality assessment and the inclusion of identified articles.
- **Results:** This section addresses the major findings of the review of the clinical issue or topic in an evidence-based, objective, and balanced style, emphasizing the available highest-quality evidence.
- **Conclusions:** It clearly states the conclusions to answer the posed questions, if applicable, based on the conclusions of the available evidence, and it emphasizes how clinicians should apply the current knowledge.

- In a review article, the **maximum number** of:
  - **References** are **80**
  - **Illustrations or table** are **5**

-Narrative reviews- Should contain at least 60 references. Abstract should be non-structured. The word count should not exceed 4500 words. Narrative reviews should critically assess the current knowledge of the field.

-Systematic reviews-

Systematic Review or Meta Analysis:

Authors should report systematic reviews and meta-analyses in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement. Systematic Reviews maximum number of references is 100, maximum number of illustrations/Tables is 6. For Systematic Reviews, both abstract and text of the manuscript should be subdivided into the following sequential sections:

1) Context: Provide a sentence or two explaining the importance of the review question.
2) Objective: State the precise primary objective of the review. Indicate whether the review emphasizes factors such as cause, diagnosis, prognosis, therapy, or prevention and include information about the specific population, intervention, exposure, and tests or outcomes that are being reviewed.
3) Data Sources: Succinctly summarize data sources, including years searched. Include in the search the most current information possible, ideally conducting the search several months before the date of manuscript submission. Potential sources include computerized databases and published indexes, registries, abstract booklets, conference proceedings, references identified from bibliographies of pertinent articles and books, experts or research institutions active in the field, and companies or manufacturers of tests or agents being reviewed. If a bibliographic database is used, state the exact indexing terms used for article retrieval, including any constraints (for example, English language or human subjects). If abstract space does not permit this level of detail, summarize sources in the abstract including databases and years searched, and place the remainder of the information in the "Methods" section of the text.
4) Study Selection: Describe inclusion and exclusion criteria used to select studies for detailed review from among studies identified as relevant to the topic. Under details of selection include particular populations, interventions, outcomes, or methodological designs. Specify the method used to apply these criteria (for example, blinded review, consensus, multiple reviewers). State the proportion of initially identified studies that met selection criteria.
5) Data Extraction: Describe guidelines used for abstracting data and assessing data quality and validity (such as criteria for causal inference). State the method by which the guidelines were applied (eg, independent extraction by multiple observers).
6) Results: State the main results of the review, whether qualitative or quantitative, and outline the methods used to obtain these results. For meta-analyses, state the major outcomes that were pooled and include odds ratios or effect sizes and, if possible, sensitivity analyses. Accompany numerical results by confidence intervals, if applicable, and exact levels of statistical significance. For evaluations of screening and diagnostic tests, include sensitivity, specificity, likelihood ratios, receiver operating characteristic curves, and predictive values. For assessments of prognosis, summarize survival characteristics and related variables. State the major identified sources of variation between studies, including differences in treatment protocols, protocols, co-interventions, confounders, outcome measures, length of follow-up, and dropout rates.
7) Conclusions: Clearly state the conclusions and their applications (clinical or otherwise), limiting interpretation to the domain of the review.

Systematic reviews are welcome. They should be critical assessments of current evidence covering a broad range of topics of concern to those working in the specific field of journal. Systematic reviews abstracts to be structured as above. N.B. For advice on writing systematic reviews consult: The Cochrane Reviewers' Handbook
Meta-analysis of observational studies: A MOOSE checklist is required for meta-analysis of observational studies.

Letter to the Editor

Letters to the Editor about a recent journal article are referring to a recent article in this journal must be received within three months of its publication. For example, a letter referring to an article published

in the January issue must be submitted online no later than March 31st. Letters submitted after the allowed time will not be considered.

- A maximum of three **(3) authors** and **10 references** are allowed.
- **Neither tables nor figures** are allowed.

LETTER is often accompanied by a REPLY.

Correction

- A modification or correction of previously published material; this is sometimes called "errata".
- Correction refers to changes the author wants to introduce post-acceptance, at any time thereafter, during the publication processes or post-publication.
- If the author determines that it is scientifically necessary, then it should be made. A Correction is then created and published in the next available issue.
- In addition, it is linked online to the published article, and if the article is referenced, the Correction information should be included.

Correction as a new article

All corrections must be submitted in the journal website and will be reviewed by the EIC. After accepting a correction, this new article will be published in the journal.

Word Count:

The maximum word count of a correction is 250 words.

Preparation of Manuscript

Organization of the paper and style of presentation

Manuscripts must be written in English. Authors whose native language is not English are recommended to seek the advice of a native English speaker, if possible, before submitting their manuscripts.

You can also visit http://www.internationalscienceediting.com/. International Science Editing offers a language and copyediting service to all scientists who want to publish their manuscript in scientific peer-reviewed periodicals and books.

Manuscripts should be prepared with wide margins and double spacing throughout, including the abstract, footnotes and references. Every page of the manuscript, including the title page, references, tables, etc., should be numbered. However, in the text no reference should be made to page numbers; if necessary, one may refer to sections. Try to avoid the excessive use of italics and bold face.

Manuscripts should be organized in the following order:

- Title page
- Body of text (divided by subheadings)
- Acknowledgements
- References

Important note: all tables must be in a separate MS Word file with correct reference to the text. Also all Figures and photos must be in JPEG format and as a single file. Figures are only accepted as JPEG files at 300 dpi (dots per inch) or greater.

SI units should be used, i.e., those based on meters, kilograms, seconds, etc.

Title page (sample title page can be found by referring to this link: http://intjsh.sums.ac.ir/page_19.html.

The title page should provide the following information:

-Type of Article

Title (should be clear, descriptive and not too long)
- Name(s) of author(s); please indicate who is the corresponding author
- Full affiliation(s)
- Complete address of corresponding author, including telephone and fax numbers and e-mail address
- Abstract; should be clear, descriptive, self-explanatory and not longer than 250 words, it should also be suitable for publication in abstracting services
- Keywords.

-Running title::a shorter version of the title (40 characters at most) is needed.

Introduction should provide a context or background and specify the purpose or research objective of the study or observation.

Materials and Methods

Must indicate clearly the steps taken to acquire the information. Be sure that it includes only information that was available at the time the plan or protocol for the study was written. It should be detailed (including controls, inclusion and exclusion criteria, etc) and may be separated into subsections. Repeating the details of standard techniques is best avoided.

The software used for statistical analysis and description of the actual method should be mentioned.

Human and Animal Rights, and Informed Consent

All studies using human or animal subjects should include an explicit statement in the Materials and Methods section identifying the review and approval committee for each study. Editors reserve the right to reject papers if there is doubt whether appropriate procedures have been used.

Results should be presented in a chronological sequence in the text, table, and illustration. Organize the results according to their importance. They should result from your own study.

Tables

Number as Table 1, Table 2, etc, and refer to all of them in the text.
Each table should be provided on a separate page. Tables should not be included in the text.

Each table should have a brief and self-explanatory title.·
Any explanations essential to the understanding of the table should be given in footnotes at the bottom of the table.

Figures

Number figures as Fig. 1, Fig. 2, etc and refer to all of them in the text.·
Each figure should be provided on a separate sheet. Figures should not be included in the text. They should be as single JPEG files at 300 dpi or greater resolution.

Each figure should have a self-explanatory caption. The captions to all figures should be typed on a separate sheet of the manuscript. Photographs are only acceptable if they have good contrast and brightness.

Discussion should emphasize the new and important aspects of the study and the conclusions that follow from them. Possible mechanisms or explanations for these findings should be explored. The limitations of the study and the implications of the findings for future research or clinical practice should be explored.

Supplementary Materials such as movie clips, questionnaires, etc may be published on the online version of the journal.

Any technical help, general, financial, and material support or contributions that need acknowledging but do not justify authorship, can be cited at the end of the text as **Acknowledgments.**

Reference

References should be complied numerically according to the order of citation in the text in Vancouver style. The numbers of references should preferably not exceed 40 for original articles, 15 for brief, and 10 for case reports. References should optimally be prepared with EndNote software.

For the references credited to more than 6 authors please provide the name of the first six authors and represent the remaining authors by the phrase "et al."

For various references please refer to "the NLM style guide for authors, editors, and publishers".

Listed below are sample references. Moreover, Intjsh has its own EndNote style. Authors are advised to prepare their references based on this style. This style is available at this link.

Journal Article:

• Gaydess A, Duysen E, Li Y, Gilman V, Kabanov A, Lockridge O, et al. Visualization of exogenous delivery of nanoformulated butyrylcholinesterase to the central nervous system. Chem Biol Interact. 2010;187:295-8. doi: 10.1016/j.cbi.2010.01.005. PubMed PMID: 20060815; PubMed Central PMCID: PMC2998607.

• Javan S, Tabesh M. Action of carbon dioxide on pulmonary vasoconstriction. J Appl Physiol. In press 2005

Complete Book:

• Guyton AC: Textbook of Medical Physiology. 8th ed. Philadelphia, PA, Saunders, 1996.

Chapter in Book:

• Young VR. The role of skeletal muscle in the regulation of protein metabolism. In Munro HN, editor: Mammalian protein metabolism. Vol 4. San Diego; Academic; 1970. p. 585-674.

Organization as the author

- Diabetes Prevention Program Research Group. Hypertension, insulin, and proinsulin in participants with impaired glucose tolerance. Hypertension. 2002;40(5):679-86.

No author is given

- 21st century heart solution may have a sting in the tail. BMJ. 2002;325(7357):184.

Article not in English

- Ellingsen AE, Wilhelmsen I. Sykdomsangst blant medisin- og jusstudenter. Tidsskr Nor Laegeforen. 2002;122(8):785-7. Norwegian.

Article with published erratum

- Malinowski JM, Bolesta S. Rosiglitazone in the treatment of type 2 diabetes mellitus: a critical review. Clin Ther. 2000; 22(10):1151-68; discussion 1149-50. Erratum in: Clin Ther. 2001; 23(2):309.

Abstract

Word Count of Abstract:

- An abstract of 250-350 words should be provided to state the reason for the study, the main findings and the conclusions drawn from the observation.

An abstract is required in:

- A **Structured abstract** is **required** for the below article types:
    - Research Articles

- Review Articles
- Case Reports
- Brief Reports

When abstracting a review article, a concise summary of the salient points should be addressed.

The abbreviations should preferably not be mentioned in the abstract.

Keywords are used for indexing purposes.

A list of **3-10 keywords** must be provided for indexing purposes. All keywords should be provided according to the **MeSH terms** at: http://www.nlm.nih.gov/mesh/MBrowser.html. Note that the preferred expression is indicated by the label "**MeSH Heading" and not "Entry Term".** The desired terms may then be copied from the MeSH Browser. Another way of finding appropriate headings is to search PubMed to find articles on similar topics, and review the MeSH headings assigned to those articles. To read more about Keywords click here.

- In the "**Keywords**" section, enter your manuscripts' keywords.
- Keywords can be separated using **Tab** or **Enter** button on keyboard or by clicking the keyword.
- If the entered keyword had been defined in the journal before, the system will suggest this keyword to the author.
- In other states, the author can enter his/her own keywords.
- Also, for deleting each keyword, author can simply click the delete sign on every keyword.

Correction of Errata:

The Journal will publish an erratum when a factual error in a published item has been documented.