PRIMARY SCHOOL TEACHERS' ROLE IN THE PROMOTION OF MENTAL HEALTH AMONG SCHOOL CHILDREN IN ZOMBA DISTRICT, MALAWI

MSc. (COMMUNITY HEALTH NURSING) THESIS

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Primary School Teachers' Role in the Promotion of Mental Health among School Children in Zomba District, Malawi

MSc. (Community Health Nursing) Thesis

By

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Declaration

I, Isabella C.W Yangayiro, the undersigned declare that this thesis on the role of primary school teachers' in the promotion of mental health for school children within Zomba district, is my original work. Any data from other sources used in this thesis has been acknowledged and added to the list of references.

_____

Full Legal Name

_____

Signature

_____

Date

Certificate of Approval

The undersigned hereby declare that this thesis is the original work of Isabel Yangayiro and whereby any additional information has been used it has been duly acknowledged. It is therefore submitted with our approval.

Signature: _____ Date:_____

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Main Supervisor

Signature: _____ Date: _____

Enalla Thombozi

Co-Supervisor

Dedication

I dedicate this work to my husband; Hastings Misha Honde, Kukhanyire Honde (son), Lizwe Honde (daughter), my parents (Wisdom Yangayiro and Bridget Phiri) and all my siblings.

Acknowledgements

I thank my supervisors; Associate Professor Jane Chimango and Mrs Enalla Thombozi for the support throughout my research work. Special thanks should also go to my husband; Hastings Misha Honde for the social, physical, emotional and financial support throughout the masters programme. Your contributions will be remembered forever. Kukhanyire and Lizwe were deprived of my roles as a mother for the sake of this paper, therefore, would like to say thanks for your patience and understanding. The fruits of this paper are yours. My parents; Wisdom Yangayiro and Bridget Phiri deserve special thanks for being there, rendering encouragement to me. You have always been there with your encouragement and words of wisdom. God bless you. To the entire community and mental health department, thanks for the academic support which was readily available. You made my work easy and possible. May you extend the same great services to the rest of students who will go through the same programme.

Abstract

The purpose of this study was to identify the role of primary school teachers' in the promotion mental health among school children within Zomba district. A school is one of the settings where mental health of the children should be promoted through intervention of teachers as primary caretakers of the children at school. Good mental health among children increases their ability to live productive lives.

The study followed a quantitative approach and it was a cross sectional study. The study was carried out in 32 primary schools in Zomba district. The study population included 300 primary school teachers (N=300) with more than six months' work experience following stratified random sampling technique. Consent was sought from all study participants. Data was analyzed using Social Package for Statistical Science (SPSS) version 20.0.

The study results have shown that primary school teachers have little knowledge on mental health promotion (35.4%, n = 106 strongly disagreed and 49.2%, n = 147disagreed with the true definition of mental health). Teachers reported that they promote mental health through good teacher – child relationship and encouraging child participation during physical activities (22.0%, n = 66), provision of positive feedback during classroom activities; 20.3% (n = 61), fostering anti-bullying behavioral activities 4.0% (n = 12); conducting other mental health activities; 1.3% (n = 4) while 30.3% (n = 91) did not respond to the question.

Teachers are not aware of screening tools for mental health problems among school children and bullying is the most common factor within school environment that acts as a risk factor for mental health problems. Therefore, there is need for primary school teachers' training on mental health promotion and screening tools for mental health problems among school children.

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List of Abbreviations

ADHD: Attention Deficit Hyperactivity Disorder

BESS: Behavioral and Emotional Screening System

COMREC: College of Medicine Research Ethics Committee

DEM: District Education Manager

DHO: District Health Office

EBP: Evidence Based Practice

HSSP: Health Sector Strategic Plan

KCN: Kamuzu College of Nursing

MHP: Mental Health Promotion

MMHP: Malawi Mental Health Policy

MOH: Ministry of Health

SDQ: Strength and Difficulties Questionnaire

SEBD: Social, Emotional and Behavioural Difficulties

SEL: Social Emotional Learning

SMH: School Mental Health

SPSS: Statistical Package for Social Science

WHO: World Health Organisation

Operational Definitions

Child: A human being below 18 years of age

Mental health: A state of wellbeing in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community

Mental health promotion: The process of enhancing the capacity of individuals and communities to take control over their lives and improve their mental health

Protective factors: Is an internal (e.g. temperament) or external (e.g. environmental) condition that protects positive mental health, enhances the capacity to cope and reduce the likelihood that a mental health problem or disorder will develop

Resilience: The ability to rebound after adversity

Risk factor: An internal or external condition that increases the likelihood of a mental health problem

CHAPTER 1

1.0 Introduction and Background Information

1.1 Introduction

Children are future leaders hence, laying a good foundation for them through promotion of mental health in their early years of life is vital. Therefore, through mental health promotion, they become responsible and fruitful adults in later years of life (Desjardins, et al., 2008). Children with good mental health can have effective relationships with parents, teachers, and any other individual. They will effectively learn and become productive citizens, contributing to the country's economy. Mental health problems tend to persist from early years of life to adulthood (Baker, 2013). Weare & Nind, (2011) also state that a critical period in life for development of a good foundation for mental health is childhood where behaviours such as tobacco smoking, drinking alcohol and eating habits that can compromise both physical and mental health can be prevented. Similarly, Desjardins et al., (2008) observed that problem such as substance misuse, unhealthy eating behaviours, lack of exercise, injury and some violence are because of poor mental health in childhood and adolescence. This carries a signal function that if proper measures are taken within these early years of life, mental health can be successfully promoted.

The World Health Organization (WHO) defines mental health as "a state of wellbeing in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community" as stated by Herrman & Jané-Llopis (2012).Stanhope & Lancaster (2017) asserts that mental health is fundamental to human wellbeing at personal and family level, contributing to the community development through family and social connections. This implies that for effective relationships at family, school, community and national level, mental health has to be promoted among

people. Mental health promotion is the process of increasing the capacity of individuals and communities to take control over their lives and improve their mental health (Kobus-Matthews, Jackson, & Easlick, 2014). Everyone needs to be empowered including children, so that on their own they should be able to realize the best interventions for promoting their mental health. Promoting mental health in any country or community as stated by Herrman & Jané-Llopis (2012), requires everyone to understand its importance and its ways of promoting it. As stated in Malawi Health Sector Strategic Plan 11 (Ministry of Health, 2017) health promotion is an important tool in improving health for all. WHO states that mental health promotion can be achieved through multisectoral approach, incorporating other sectors such as education, labour, justice, transport, environment, housing, and welfare sectors as well, since determinants of mental health are multiple (World Health Organisation, 2016).

1.2 Background Information

According to Ministry of Health (2017) Health Sector Strategic Plan 11, evaluations have shown that 14% of the global burden of disease can be as a result of neuropsychiatric disorders, with around 20% of the world's children and adolescents estimated to have these mental disorders or problems, with similar types of disorders being reported across cultures. This is an indication that children are highly affected by mental health problems in their childhood hence calling for an action as a preventive measure. Further, it has been estimated that 10–20% of children and youth worldwide have mental health problems contributing to large percentage of the global burden of disease (Kieling et al., 2011)

Surveys done in United Kingdom among school aged children (5-15 years) found that 1 in 10 children (10%) had a clinically diagnosable mental disorder with variations seen according to age, sex and ethnicity (Baker, 2013). A report by Children's Society, (2008) in England, states

that about 10% of 5-16 years old children lack early identification and treatment despite having mental health problems and 60-70% of adolescents received no early interventions despite having mental health problems clinically. Such results would mean that there is lack of personnel in early identification of mental health problems among children hence mental health needs of children are not met. In Brazil, a systematic review and meta- analysis conducted by Murray et al., (2013) showed that 20.8% of school aged children had conduct disorder.

A survey done in Australia by Lawrence et al. (2015) found that nearly one in seven children aged 4-17 years(13.9%) were assessed as having mental disorders in the previous 12 months. The identified mental disorders included Attention Deficit Hyperkinetic Disorder (ADHD) (7.4%), anxiety disorders (6.9%), major depressive disorder (2.8%) and conduct disorder (2.1%). These identified mental health problems indicate that school children cannot concentrate in their academic life hence the primary goal of attending primary school is defeated. Malhotra & Patra, (2014) in their systematic review and meta-analysis in India revealed that average prevalence rate of psychiatric disorders was 23.33% among school children aged 5-19 years. Syed, Hussein, & Hussein (2009) in their study in Pakistan found that parents reported the prevalence of 34.4% while teachers reported a prevalence of 35.8% psychological disorders following Strength and Difficulties Questionnaire (SDQ). This difference between parents and teachers would mean that teachers are in a better position in identifying mental health problems among children than parents.

In sub Saharan Africa, a systematic review by Cortina, et al., (2012) revealed that 1 in 7 children and adolescents had significant psychological difficulties with 1 in 10 (9.5%) having a specific psychiatric disorder. Akpan, Ojinnaka, & Ekanem (2010) in Nigeria found that among 572 pupils aged between 6- 12 years, teachers scale revealed that 23.1% had behavioural

disorders while parent scale revealed that 18% had behavioural disorders and these behavioural problems were more common in government primary schools than private primary schools. Teachers having a higher percentage in identifying school children compared to parents imply that teachers have a great role in the promotion of mental health for school child. A study by Ndetei et al. (2016) done in Kenya found that the prevalence of any mental disorder among Kenyan school children was 37.7 %; somatic complaints were the most prevalent (29.6 %,), followed by affective disorders (14.1%) and conduct disorder (12.5 %,) while the presence of one or more co-morbid mental disorder was seen among 18.2 % of children. A secondary analysis in Zambia by Siziya & Mazaba, (2015) among children aged between 13-15 years revealed that 15.7% had psychosocial distress of which 14.4% was among male students while 16.8% among females. A survey done in Egypt among 8459 school aged children between 6 to 12 years found that anxiety disorders were diagnosed in 7.9%, hyperkinetic disorder in 2.2% and nocturnal enuresis was present in 1.9% of children (Latif, et al., 2018). In general the studies on the prevalence of mental health problems among school children have shown that school remains the best place where early identification and management can be done to prevent the rise of complications in later years of life. In addition, teachers are more objective in the identification of mental health problems that parents thus they are the main players in the promotion of mental health of the child.

Teachers are one of the primary caretakers of children. Since teachers are always close to the school children, they have a capacity to easily identify behavioural problems manifested by children so that they are assisted in time (Kumar et al., 2009). Although the family environment is important for childrens' and adolescents' mental health promotion, the time children spend at school provides a chance for teachers to intervene with a number of activities aiming at

promoting mental health (Sisask et al., 2014; Lawrence et al., 2015). Therefore, teachers' are one of the main players in the promotion of childrens' mental health. Once every one is empowered, including parents, teachers, children and the entire community, there is shared responsibility in promoting mental health, thus promoting mental health for all school children in their early years. Early years of life in primary school are the best time when mental health can effectively be promoted hence the study has been directed to primary schools than secondary schools.

Malawi Youth Friendly Health services handbook indicates that young people are often vulnerable to the kinds of stresses (including the challenges of growing up and exposure to risky behaviours) that contribute to mental ill health (Ministry of Health, 2009). In order to address such problems before their consequences in later years of life, children need to be supported in their mental health. However, in Malawi data is not available on the prevalence rate of mental health problems among school children, whether at school or not. Mental health promotion activities performed by primary school teachers' are not known. This implies that, little research has been done on mental health promotion among children in Malawi or they are not published.

1.3 Purpose of the Study

The study explores the role of primary school teacher's in promoting childrens' mental health. The study results will help establish local school policies targeting childrens' mental health and this will bring awareness on the deliberate activities performed by primary school teachers in promoting mental health of the schoolchildren. Therefore, the study will help to identify any gaps, if they exist, in the school curriculum on issues to do with mental health promotion in primary schools and help to incorporate such mental health issues in primary school curriculum. This will help in making sure that both teachers and children have adequate knowledge on promotion of mental health and prevention of mental illness. As such, the study

will assist in prevention of mental illness in children, adolescence as well as adulthood hence save government resources that could have been allocated to mental health services due to increased numbers of mental health problems.

1.4 Problem Statement

The mental health needs of children and adolescents have been neglected, more specially in low-income and middle-income countries despite causing health-related disability in this age group and their long lasting effects throughout life (Kieling et al., 2011).

In Malawian primary schools, little is known on teacher's knowledge regarding mental health, activities performed by primary school teachers in the promotion of mental health for school children and factors that influence childrens' mental health in the school setting. There is reported violence and intimation among the school children in most schools which is very worrying and identifying the teacher's role in the promotion of mental health promotion would enhance appropriate growth and development amidst school learning. The mental health needs of children and adolescents have been neglected, more specially in low income and middle-income countries, therefore this research study seeks to explore the role of primary school teachers in the promotion of mental health among school children. Lack of early identification of mental health problems among school children result into late diagnosis until adulthood. Literature has shown that a number of school children who have mental health problems remain unrecognised until adolescent age due to lack of recognition skills among primary school teachers (Kieling et al., 2011).Therefore, this research study seeks to explore the role primary school teachers' in the promotion of mental health of school children in Zomba district.

1.5 Justification of the Study

One of the objectives of the Malawi Mental Health Policy (MMHP) is to formulate strategies and activities for the provision of services to groups with special mental and social health problems. These groups include; women, children, adolescents, the elderly, victims of violence, refugees, prisoners and drug users. As such, the study findings will assist in coming up with recommendations on appropriate strategies and activities to address mental health needs of the children as one of special mental health need group. Furthermore, to respond to the MMHP, findings from this research study will provide baseline information on; primary school teachers' knowledge and practices regarding children's mental health, which can in turn inform potential strategies and activities to improve childrens' mental health through greater preparation and involvement of teachers.

1.6 Broad Objective

To assess the role of primary school teachers' in promotion of mental health among school children in Zomba district.

1.6.1 Specific objectives

- Assess primary school teachers' knowledge on mental health promotion activities for school children
- Identify activities that are conducted by primary school teachers that aim at promoting mental health of school children
- Establish mechanisms that help teachers identify mental health problems affecting primary school children
- Determine factors which influence the promotion of mental health among school children within the school environment

CHAPTER 2

2.0 Conceptual Framework and Literature Review

2.1 Introduction

Literature review is a written summary of the state of evidence on a research problem and it helps researchers to integrate research evidence to sum up what is known and what is not known (Polit & Beck, 2014). In quantitative studies, literature reviews help to shape research questions, suggest appropriate methods and point to a conceptual framework (Polit & Beck, 2014). Therefore, in this research study, literature review covers areas such as: teachers' knowledge on mental health promotion for children, activities performed by primary school teachers' within school environment which promote mental health, ways that help primary school teachers to identify possible mental health problems and factors within the school environment which can promote and hinder children's mental health.

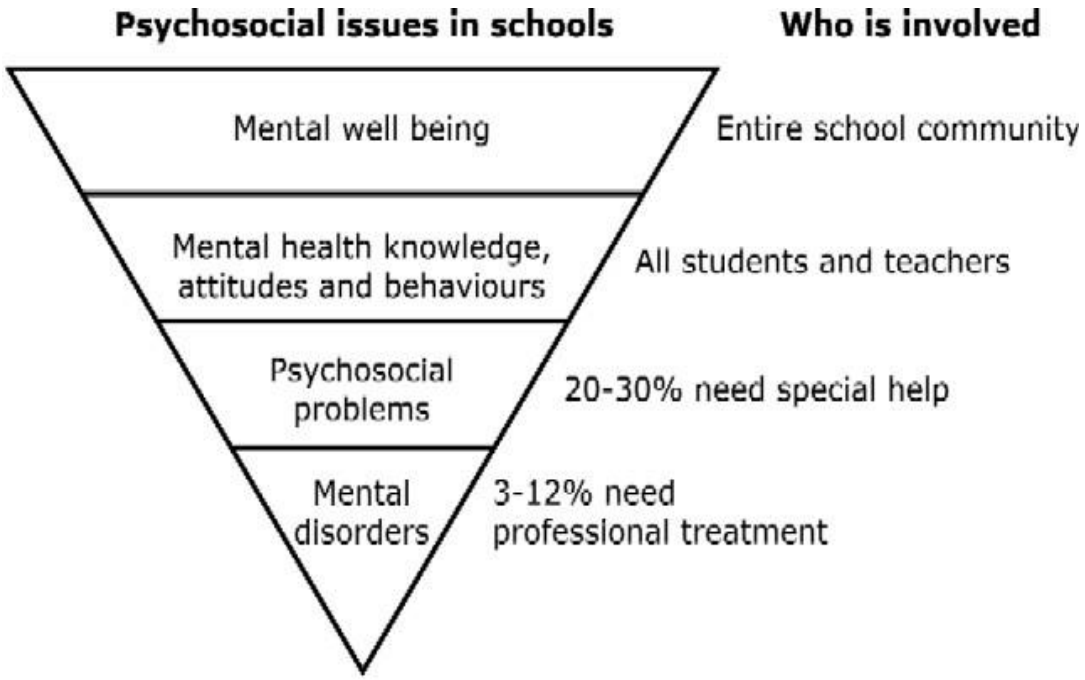
A number of search engines were used to access information on internet and these included; Google, Google scholar, HINARI, and PubMed. Key words such as; mental health, mental health promotion, school mental health, health promotion, child mental health, primary school teacher role were used in searching for literature.

Schools are an ideal place where mental health of the children of all ages can be promoted and acting as centers where a child can be managed or referred to appropriate health and psychosocial services (Cefai & Cooper, 2017). When the school environment is not conducive a school child may manifest with some Social, Emotional and Behavioral Difficulties (SEBD) such as inattentiveness in lessons; noncompliant behaviour and oppositionality; anti-social behaviour including physical and verbal aggression; bullying, extreme shyness and social withdrawal; test and performance anxiety; stealing; school refusal and truancy, and general disaffection (Cefai & Cooper, 2017). If such problems are not managed properly, this would

result into full blown mental health problems. Therefore, this puts a school environment a vital place where child mental health can be promoted through teachers as care takers of the school child.

2.2 Theoretical and Conceptual Framework

Theoretical framework is the "blueprint" for the entire dissertation inquiry (Grant & Osanloo, 2014). Theoretical framework provides a foundation on which research problem, purpose, research questions and significance of the research are built on (Grant & Osanloo, 2014). This study has built its foundation on a mental health promotion, prevention and early intervention model by World Health Organization (WHO,1994).



Adapted from Hendren R, Birrell-Weisen R & Orley J, (1994) *Mental health programs in Schools*. Geneva, Division of Mental Health, World Health Organisation.

The model has four major levels and targets universal approach where all school children are accomodated so that their mental health needs are met (Graetz et al., 2008). The model

highlights how important the school environment is in the promotion of mental health for children, prevention of mental health problems and early interventions to be done before the arising of complications.

From the model, mental health promotion depends on the entire community involvement including, teachers, parents, children and community at large. Teachers will be involved during school time when a child is within the school environment so that as they try to achieve the academic goals, at the same time mental health needs of a child is promoted through good relationship among teachers and children, creation of conducive environment and offering a spirit of belonging to all. Parents are involved when the child is within the home environment making sure that the mental health needs of the child is promoted through good interaction, provision of childs needs, parental guidance, avoidance of quarrels within the home environment as these would dispose a child to mental health problems. The community has to take part as the child interacts with different people in the community making sure that children are recognised and accomodated in the activities happening within the school community.

Therefore, the model has been divided into four levels: level 1; positive school community, level 2; all teachers and school children, level 3; school children who need special help and level 4; school children who need professional treatment. Below is the discussion on each model level in relation to teachers' role in the promotion of mental health

Level 1: Positive school community

This involves all the school community thus including teachers, school children, parents and all the surrounding communities.Teachers at this level need to create good relationships with school children, parents, families and the communities so that experiences are shared pertaining to children behaviours potrayed during school time. Teachers at this level can take a major role

in reducing risk factors and promoting protectice factors for school hildren's mental health. Psychosocial skills can be taught though life skills subject in the primary schools. This helps in preparing school children on how to manage crises encountered in life so that positive coping and resiliency are built.

Level 2 : All teachers and school children

At this level, all school chidren and teachers are involved. Teachers at this level require adequate knowledge on mental health and mental health promotion so that they have capacity to identify school children with mental health problems for early intervention. Teachers are more involved in social emotional learning where they teach school children how to manage anger, resolve conflicts, cope with fear and worries, make decisions and resolve conflicts, and making and mantaining friendships. Social emotional skills help children to withstand hardships hence preventing them from mental health problems. Early identification can be done through observation of school children behaviours and their participation in school activities. Good relationships can also be ensured at this level between teachers and school children, among school children themselves so that a sense of belonging and connectedness is created thus promoting mental health of a child.

Level 3 : School children who need special help

This is a targeted level where only those school children with mental health problems are managed at school level. Teachers at this level have a responsibility to make sure that they create good relatioships and trust with these school children, counselling where indicated, provide social support and involve them in school activities such as physical activies.

Level 4: School children who need professional treatment

Teachers at this level have a duty to refer all the school children with mental health problems to the hospital / mental health specialists for proper assessment and management. School children within level four of the model require specialists care so that their mental healh needs are met to prevent complications.

2.3 Literature Review

2.4 Teacher's Knowledge on Mental Health Promotion for Children

Primary school teachers have a great role to play in the development of mental health of the school children. They spend much of the time with children; they know their pupils in terms of the strengths and weaknesses and can easily detect any deviation from normal behaviour in a pupil because of the long time spent with pupils. Sisask et al. (2014), in 11 European countries noted that almost half of the teachers thought that teachers usually know when children have emotional problems (46%) and 52% claimed that they currently have some pupils with a mental health problem. This is an indication that teachers as primary care takers of school children have knowledge on mental health and have the ability to identify any mental health problem presented by the school children. Contrary, a study by Jimoh (2014) in Nigeria shows that there was deficiency in teachers' knowledge as well as negative attitudes to pupils with Attention Deficit Hyperactivity Disorder (ADHD) among primary school teachers. In addition, it was also observed that teachers' level of education, length of service and exposure to training on ADHD all have significant influence on the perceived knowledge of and attitudes to pupils with ADHD. This signifies that work experience has a role to play in mental health promotion and training on mental health issues is essential. A study by Kutcher et al. (2015) on the African Guide Malawi version (AGMv), a mental health curriculum which was taught to both primary and secondary

school teachers in the districts of Lilongwe, Mchinji and Salima and youth club leaders showed an increase in knowledge on mental health after three days of training. In addition, it also revealed positive attitudes towards mental health illness. Through such studies, it clearly indicates the need for educators to undergo a training on mental health for them to have capacity in managing school children with different mental health needs.

A study by Soares, EstanislauI, Brietzke, Lefèvre, & Bressan (2014) on public school teachers' perceptions about general health and mental health in Brazil, found that teachers felt insecure in decision making when managing children with mental health problems due to lack of adequate knowledge and had shown interest in acquiring knowledge on mental health as it is vital in their daily interactions with children. This means that teachers need to be equipped with adequate knowledge on mental health so that early identification of mental health problems is possible and be addressed confidently. Koller & Bertel (2006), in Columbia state that pre-service training for school based personnel need to incorporate issues on mental health so that they are prepared to manage students with emotional problems in the classroom. Kumar et al. (2009) in India through their workshop with 34 primary school teachers revealed that before the workshop the teachers had little knowledge on mental health problems presented by school children making them unable to identify and manage these children. In addition, teachers admitted the need to have adequate training on mental health so that they are able to detect and intervene early before complications arise otherwise children will be misinterpreted with their psychological behaviors portrayed. A survey by Walter, Gouze, & Lim (2006) done in United States found that, of 119 teachers more than half identified disruptive behaviour, symptomatic of a problematic state of mental health or well-being, as the largest problem facing their schools, and lack of information/training was identified as the greatest barrier in addressing mental health problems.

Similarly, study findings in Saudi Arabia by Abulhamail et al. (2014) which looked at the knowledge and attitudes of primary school teachers towards pupils with epilepsy found that teachers with good knowledge were less likely to mind having a child with epilepsy in their class or think that they should be placed in a special classroom than those without adequate knowledge. In addition, it was also found that teachers in private schools would mind having epileptic pupils in their classes and wish to be placed in the special classes as compared to those teachers in the public schools.

The above literature shows that deficits exist on mental health promotion knowledge among primary school teachers which needs to be addressed. However, deficits differ among countries due to level of development.

2.5 Activities Within the School Environment Which Promote Mental Health

Primary school teachers have a number of activities to perform in promoting mental health of a school child. These activities have been divided into social, emotional and behavioral related activities, academic related activities and non -academic related activities.

2.5.1 Social, emotional and behavioral related activities.

Department for Education (2016) in United Kingdom puts it that school should be a safe and affirming place for children where they can develop a sense of belonging and feel able to trust and talk openly with adults about their problems. Schools need to support their school children in difficult moments such as traumatic events (abuse, accidents, domestic violence and injuries), life changes (such as changing schools or during transition from primary to secondary school) and in times of loss or separation (such as death, parental separation, divorce, hospitalization, loss of friendships especially in adolescence, family conflict or breakdown that results in the child having to live elsewhere, being taken into care or adopted. Elbertson,

Brackett, & Weissberg (2010) points out that helping children to understand their and others' emotions, increase empathy, and develop self-regulation strategies to manage negative emotions, such as anger and stress, are all significant competences which schools need to include in their curriculum and teach them systematically to all students. School teachers can play this role because they are always interacting with children. At the school level, encouragement from teachers, involvement in extracurricular activities (art, sport, music, drama), and encouragement to develop at least one skill or ability that can be a source of pride or achievement for the young child (e.g., involvement in daily activities, assisting others, acting as a school patrol) will protect against the negative effects of adversity and stress in the young child's life Kay-Lambkin, Kemp, Stafford, & Hazell (2007). A study by Puolakka, Konu, Kiikkala, & Paavilainen (2014) also revealed that relationship with friends and teachers were vital to the promotion of mental health for the children. Therefore, primary school teachers have a duty to create and reinforce good relationship with pupils so that it aids in mental health promotion. A school child who feels unloved, not part of the school and lacking connection with the school environment is always stressed and depressed hence affect mental health negatively. This can lead to increased absenteeism for such children who feel not being loved.

2.5.2 Teachers' academic related activities.

A teaching style that encourages the development of personal skills will be the most effective, for example, storytelling, rhyming and acting games, having the children work together to build something, and creative activities such as art, dance, and music (BLS, 2006). Children and young people need to learn how to understand and manage their own emotions, understand others and care for them, manage their sexual relationships responsibly, eat and drink sensibly and avoid drugs, understand mental disorders and what can be done about them, understand

parenting, manage their responses to modern media and choose positive life goals (Layard & Hagell, 2015). A study by Puolakka, Konu, Kiikkala, & Paavilainen (2014) note that children reported that were happy with the idea of optional subjects, but, on the other hand, they wanted to have more non-theoretical subjects such as physical exercise, music, and home economics which help in the development of skills hence promoting mental health. Literature has also shown that subjects that involve children in the development skills help them in problem solving skills such that they cope easily in the times of stress (Weare & Nind, 2011).

2.5.3 Non-academic activities.

Latif et al., (2018) in their survey in Egypt found that 95.5% of teachers agreed that they play a significant role in identifying pupils with mental health problems. Lawrence et al. (2015) in Australia found that teachers and other school staff provided 18.9% of students with informal support for emotional and behavioural problems. Schools can promote positive mental health and create resilience, providing the child or young person with resources to thrive and, in adverse conditions, to cope by buffering negative stressors (Weare & Nind, 2011).The assumption is that the school environment has all what takes to promote the mental health of a child. It is where pupils learn skills in different areas from which they develop mentally and be able to cope with day to day adversities. Australia primary school mental health initiative (2012) states that for mental health to be comprehensively promoted in schools, there is need to work closely with the families and parents. Working with parents can also be achieved during parent teachers' association meeting. During these meetings, mental health issues for children can be discussed so that knowledge on mental health is shared to all who are caretakers for children.

Looking at the activities performed by primary school teachers in mental health promotion, it clearly shows that they have a vital role in promoting mental health of a school

child. Other activities can be done through academic processes while others can be done through physical and social activities as teachers interact with school children during the day. Implementation of all these activities by primary school teachers would mean that school children mental health is promoted hence preventing mental health problems in adolescent and adulthood.

2.6 Mechanisms that Help Primary School Teachers' to Identify Possible Mental Health Problems Among School Children.

Literature stipulates that one of the roles of primary school teachers in mental health promotion is early identification of children with mental health problems. Desta et al. (2017) state that teachers can often be more objective observers of children's developmental behaviour than parents would be. Therefore, there are a number of mechanisms teachers may use to identify such school children with mental health problems. Hoff, Peterson, Strawhun, & Fluke (2015) state that there are a number of screening tools that can be used in schools to identify behavioural and emotional problems among school children so that early identification and intervention are implemented. These screening tools include; Systematic Screening for Behavior Disorders (SSBD), Student Risk Screening Scale (SRSS), Strengths and Difficulties Questionnaire (SDQ), Emotional and Behavioral Screener (EBS), Behavioral and Emotional Screening System (BESS). A study in Ethiopia which aimed at improving teachers' skill in early detection of mental illness among school children used a Strength and Difficulty Questionnaire as a way of identifying mental health problems. This is one of the most reliable and well established tools internationally. National Children's Bureau (2017) found that teachers were identifying mental health problems among school children through ad hoc concerns raised by staff through observation of a child's change in behaviour or mood. This information would therefore, be

shared among teachers and parents to assess progress for early intervention. A study by Ciampa (2016) found that daily anecdotal record keeping by teachers were reported to aid in identifying those school children with mental health problems and parents were also a valuable source of information for their child. A study by Marshall, Wishart, Dunatchik, & Smith (2017) found that 82% of institutions used ad hoc identification as a common method of identification, 76% used information from external services, 50% used previous schools' administrative data collected for other purposes such as attendance or attainment record, 24% of institutions conducted targeted screening of school children and 15% conducted universal screening of all school children. A qualitative study by Humayun (2016) in Canada found that teachers relied on personal experience with anxiety when recognizing it in children. Since these teachers had experienced anxiety in their childhood, this helped them to easily identify those school children having the same problem.

Mechanisms used to identify mental health problems among school children would assist in early identification of mental health problems among school children hence aiding in early intervention. However, if teachers are not oriented to such mechanisms, mental health problems among school children will be identified at a later stage when complications have already risen.

2.7 Factors that can Promote and Hinder Mental Health of School Children' Within the School Environment

Several factors can either promote or hinder mental health of a child within the environment a child lives. These factors can be protective factors or risk factors. Grogan, Holland, & Dea (2015) state that a risk factor is an internal or external condition that increases the likelihood of a mental health problem. However, this does not mean that the presence of risk factor will automatically result into mental health problem. Protective factors are characteristics

that reduce the likelihood of poor mental health either on their own or when the risk factors are present, (National Research Council and Institute of Medicine, 2009). Rowling (2009) stipulates that one of the reasons that hinder health promotion activities in schools is that health is not core business of education. In relation to this, in Malawian setting, primary school teachers would perceive that assisting the child academically is their main business as a result health needs of the child are neglected. However, for a school child to excel, there is need for mental health. A study by Grogan et al., (2015) found that in the school setting factors that may put school children at risk of mental illness included; disengagement, absenteeism, isolation, bullying and relationship difficulties, low academic achievement, violence/aggression, learning disabilities, cultural differences, low self-esteem, stressful life events, difficult school transitions, poor connection between family and school and harsh and inconsistent discipline. Factors such as absenteeism, bullying and relationship difficulties, low academic achievements, low self-esteem, harsh and inconsistent discipline are also common in Malawi hence, putting the school children at risk of developing mental health problems. Eiraldi et al., (2015) in their study found that despite the availability of evidence that schools are powerful in the promotion of mental health, individual staff-level factors such as professional characteristics that include training, experience, and attitudes toward interventions, personality, competence, intelligence, and experience may act as barriers to implementation of mental health services in schools. Similarly, looking at the pre training which primary school teachers undergo, there is lack of mental health promotion component which would aid in the identification and management of school children with mental health problems. This implies that for mental health promotion to be effective in schools, teachers need to have knowledge, experience and have positive attitude towards mental health of the children. Weist & Murray (2008) also found that with insufficient human, financial and

material resources, the goals of mental health promotion in schools cannot be achieved. In Malawian primary schools, there are few teachers in most of the schools, materials like books and computers are also at a lower side. This therefore, contribute negatively to the mental health of the school child. Similarly, team level factors have also been noticed to affect implementation of mental health promotion in schools since the implementation depends on interdisciplinary approach involving a variety of professions called teams (Fixsen et al., 2009). Australia primary school mental health initiative (2012) state that children who experience multiple stressors – such as family breakdown, lack of academic success, parental mental illness, bullying, parental substance abuse, living in poverty or experiencing racism – are more likely to develop emotional or behavioural problems that can continue to affect their mental health into adulthood. Wilcox & Corr (2014) support that poor economic and social conditions in the very early years of life have been shown to affect the risk of poor mental health in childhood and later life. Physical activities have been found to have a positive impact on mental health of the child. Therefore, Hunter Institute of Mental Health, (2010) stipulate that children who participate in regular, safe, physical activity are more likely to have positive mental health than those who do not participate. In Malawian settings, primary school children do participate in physical activities as their curriculum has a lesson on physical exercise. This implies that one of the factor that mostly promotes mental health of the school child is physical exercise.

2.8 Conclusion

It is evident from the literature review that primary school teachers have little knowledge on mental health promotion for school children due to lack of inclusion of mental health issues during pre -training. However, some studies in other countries have shown that primary school teachers have the capacity to promote mental health for the school child since they undergo post

trainings on mental health issues. Primary school teachers' do carry a number of activities in the promotion of mental health which aid in the early identification and intervention of mental health problems. Therefore, this is an indicator that primary school teachers' are the main players in the promotion of mental health of a school child. There are a number of ways which primary school teachers can use in the identification of mental health problems such as observation of child's behaviour, reports from parents, teachers self-experience on some conditions like anxiety and other internationally recognized assessment tools such as strength and difficulty questionnaires and BESS. School environment has a number of factors that would predispose a school child to mental health problems and other factors protect the school child from mental health problems. Protective factors within the school environment include; good relationships between teachers and school children, positive feedback during classroom lessons and participation in physical activities. Risk factors such as lack of participation in physical exercises, low academic achievement, absenteeism, poor relationships and bullying contribute to poor mental health among school children.

CHAPTER 3

3.0 Research Methodology

3.1 Introduction

This study is a cross sectional study that used a quantitative approach. The approach is used in developmental psychology and education to determine the cause of an effect and does not involves manipulation of variables. This approach is ideal for this study as understanding of mental health among school children is complex and requires observations of the key variables as stipulated in the conceptual framework. Therefore, this chapter includes; study design, study setting, study population, inclusion and exclusion criteria, recruitment strategy, sampling and sample size, data collection, data collection procedure, data management, data analysis, data reliability, data validity, ethical consideration, dissemination of research findings and study limitations.

3.2 Study Design

This was a descriptive cross sectional study under quantitative approach. Research design is the overall plan for a piece of research, including main ideas-the strategy, the conceptual framework, the question of who or what will be studied, and the tools to be used for collecting and analysing data (Punch, 2014). Cross-sectional study design had been chosen because it is appropriate for describing the status of phenomena or for describing relationships among phenomena at a fixed point in time. In addition, Cross sectional study design had been used in this research since it gives a reality of picture on the ground as there is lack of data on school mental health promotion in primary schools in Malawi. Cross sectional studies are also quick, cheap and easy to carry out as there is no need for follow up once an interview has been

conducted (Sedgwick, 2014). For further research questions and interventions to be developed, cross sectional study design was implemented.

3.3 Study Setting

The study was carried out in rural and urban primary schools within Zomba district. The study setting had been chosen because experts on mental health issues are readily available at Zomba Mental Hospital, the only Government referral hospital for mental health services in Malawi. Therefore, the expectation was that primary schools in the district would benefit from such a pool of experts. These experts on mental health would be consulted throughout the study wherever there was need.

3.4 Study Population

A population is the entire aggregation of cases in which a researcher is interested in. The population studied were primary school teachers in Zomba district. The total study population was 1227 primary school teachers.

3.4.1 Inclusion criteria.

Primary school teachers with six months' work experience from date of being employed and above, prior to the date of data collection for this study were included. This was to allow only those who had relatively adequate knowledge and experience on all school activities happening within the school environment to participate, so as to collect rich and valid data for the study.

3.4.2 Exclusion criteria.

Any primary school teacher with less than six months' work experience from date of being employed did not participate

3.5 Recruitment Strategy

3.5.1 For the study participant.

In order to make sure that the best sample was selected without bias, a number of strategies were put in place. Following approval from COMREC, letters were sent to District Education Managers about the study. District Education Managers extended the information to Principal Education advisors to inform all their teachers through the head teachers of the schools. Contact details were provided in case of having questions and concerns pertaining to the study. Ethical considerations such as privacy, voluntariness, unbiased presentation of the study, clear description of the study and clearance of misconception about any form of benefit from the study were highlighted.

3.5.2 For the research assistants.

Research assistants were selected based on their fluency in English language, medical professionals, data collection experience in other studies, and their kin interest in this specific study. Phone calls were done and face to face discussions. The discussions covered areas such as research topic, objectives and its importance. Three days training was conducted to let the research assistant familiarise themselves with the question guide and gain skills.

3.6 Sampling and Sample Size

Sampling is the process of selecting a portion of the population to represent the entire population, (Polit & Beck, 2014). A sample, then, is a subset of population elements. Stratified random sampling was employed in the study. In this sampling method, all the schools were grouped into their respective zones/strata both in urban and rural areas. Within each stratum/zone, each school was listed and selection of school from each zone was done by simple random sampling. Listing of all elements (primary school teachers) in each school within

strata/zones was the first step before choosing study participants from each school. The size of the population was divided by the size of the desired sample to obtain the sampling interval (a standard distance between selected cases). This aided in coming up with the appropriate selection of k^{th} case. Every 3^{rd} case (primary school teacher) was selected to participate in the study depending on the calculated standard distance. Thereafter, samples were selected through systematic random sampling. This method had been chosen because it is more accurate in representing the population than simple random method. A sample size was calculated following Slovin's formula as below;

n= sample size

N= Population size of all teachers

e= preferred precision/ marginal error

N= 1227 (in the six zones)

e=5% margin of error (0.05)

$$n= \frac{N}{1+(Ne^2)}$$

$$n= \frac{1227}{1+(1227\times 0.05^2)}$$

n=300

Therefore, a total number of 300 primary school teachers were randomly sampled and participated in the study.

3.7 Data Collection

Data collection was done through interviews with the teachers using a structured questionnaire. Face to face interviews were conducted instead of participants filling the questionnaire on their own because some of the study participants might have difficulties due to the medical terminologies used hence affecting data quality. Polit & Beck, (2014) also states that face-to-face interviews can produce additional information through observation of the respondent's behaviour or living situation, which can be vital in the interpretation of data.

Four research assistants were recruited to assist in data collection based on their fluency in spoken English and having prior experience in data collection. English had been chosen as the language to be used during the interviews because both the interviewers and interviewees understood English. Research assistants were trained to orient them to data collection tools and equip them with data collection skills. The main areas covered in the data collection tool were demographic data of the participant, knowledge on mental health promotion among teachers, activities done by primary school teachers in line with mental health promotion, ways of identifying mental health problems among school children and factors within the school environment affecting mental health of the school child.

3.7.1 Data collection procedure.

Validity of data relies on accurate procedures in data collection. In this study, data collection was done following these steps; approached the selected zones for the Authority to know about data collection procedures, selected the study participants from the selected school, self-introduction done by the interviewer, brief description of the study given to the participant, gained consent, asked the questions using the questionnaire and documented all the information. Finally, thanked the study participant for the voluntariness.

3.8 Data Management

The researcher kept the filled questionnaires in a lockable compartment where only the researcher could have access. This had been done to make sure that there is privacy to information. Following final submission of dissertation, the questionnaires will be destroyed by burning them after 2 years.

3.9 Data Analysis

Statistical Package for Social Science (SPSS) version 20.0 was used to analyse data. Variables were clearly defined based on the questionnaire and then data entry followed using the same statistical package. Thus, frequencies and descriptive statistics were used to assess primary school teachers' knowledge on mental health promotion activities for school children; to identify activities that are conducted by primary school teachers that aim at promoting mental health of school children; and to establish mechanisms that help teachers identify mental health problems affecting primary school children. While t-test and standard deviation were used for testing differences in some variables. For instance, to understand whether there were significant differences between participants in rural and urban areas on their knowledge of mental health promotion, an independent samples t-test for the difference in mean score on knowledge of mental health was used at 5% significance level. To determine factors which influence children's mental health within the school environment, a chi square test and logistic regression analysis were used. Thus, firstly, primary school teachers study participants were asked to state the extent to which they think their school environment had influenced childrens' mental health on a 4 – point scale (1 = to no extent; 2 = to a lesser extent; 3 = to some extent; and 4 = to a greater extent). This outcome variable was then dichotomized into an outcome variable "Environment of

the school at which participant teaches influences children's mental health" (0 = No; 1 = Yes). The first stage involved variable selection. To achieve this, a chi square test of association with the following factors was performed at 5% significance level: "How teacher would feel to have a mentally disturbed pupil in their classroom"; "Whether curriculum has mental health issues"; "Whether all children participate in the said extracurricular activities"; "Why other children do not participate in extracurricular activities"; "Whether the school has sufficient books, computers, and any other resources for their education"; "Whether bullying occurs at the school"; "Where and when bullying often occurs, if it does"; "Sex most often bullied on"; "Most common type of bullying"; "How teacher manages pupils who have misbehaved"; "Teacher's Sex"; "Location type"; "Teacher work experience"; "Qualifications of teacher/participant"; "Availability of school health committee" and "Availability of school bullying prevention and intervention plan". Factors whose p – value was at most 0.25 were selected as potential predictors for the logistic regression analysis. Secondly, the outcome variable was regressed on the independent variables by a fitting a logistic regression model. This model was further assessed for its fit using three methods, namely: classification, Hosmer-Lemeshow goodness-of-fit test; and the receiver operating curve (ROC) test under the assumption that results in at least two methods should agree for the fitted model to be a better fit. Then data was presented in tables, graphs and charts.

3.9.1 Data reliability.

Burns & Grove, (2011), state that reliability is concerned with the consistency of the measurement method. It implies that data collecting instrument need to yield the same data when used often times. Failure to produce the similar data means that it is unreliable. In order for the instrument to generate quality data for the study, which can be reliable, test retest reliability

procedure had been done. Test retest procedure is when the researcher administers the measure to a sample twice and then compares the outcomes, (Polit & Beck, 2014). Therefore, piloting of the instrument was done twice at different times, two different schools, different days and the results were compared to check the differences. There were no significant variations in the findings during pilot study and minor corrections were done.

3.9.2 Data validity.

Validity of an instrument has been described by Burns & Grove, (2011) as determination of how well the instrument for data collection reflects the abstract concept being examined. Research experts had been used to thoroughly look at content validity. The study findings have also shown that the instrument used in data collection had captured all the required information for the area of study. For example, the captured data has clearly shown that primary school teachers are in a position to promote the mental health of a school child despite having inadequate knowledge on mental health promotion. Therefore, the collected data is valid.

3.10 Ethical Considerations

Research proposal had been sent to College of Medicine Research and Ethics Committee (COMREC) for approval before data collection. The Ministry of Education, Science and Technology granted permission to conduct this study in the requested district. Upon ethical approval from COMREC, consent was sought from the study participants before data collection. Consent was also sought from the managers; Principal Education Advisers for the selected zones and head teachers for all the study sites. Study participants were assured of the anonymity in that numbers were used instead of their names. They were also assured about their freedom of participation and withdrawal from the study. In this, explanation was made that the participants were free to withdrawal from the study at any time they felt to do so for they are autonomous

beings. After analysis of the results, all the question guides were kept in a locker and thereafter burnt after 2 years for the purpose of the privacy and confidentiality of the participants.

3.11 Dissemination of the Research Findings

Dissemination will be done through submission of a copy of thesis so that they are aware of how primary school teachers are promoting mental health of the children at Ministry of Education and Health. Copies of the study results will also be sent to primary schools. The thesis will be submitted to Kamuzu College of Nursing Library and Zomba Mental Hospital. It will be published and also be presented to national and international conferences as may be required.

3.12 Study Limitations

Data was collected from primary school teachers only, without inclusion of school children themselves and parents. This deprived its quality through hiding of the information pertaining to what they do towards the school children in a negative way. For example, teachers would hide information on corporal punishment as one of punishments given to school children for fear of being in prison since it is not acceptable.

CHAPTER 4

4.0 Results

4.1 Introduction

The chapter gives results of primary school teachers' knowledge on mental health promotion for school children; activities that are conducted by primary school teachers' aiming at promoting mental health of school children; mechanisms that help teachers identify mental health problems affecting primary school children; as well as, factors which influence childrens' mental health within their school environment. The results include variables such as age of participants, sex of participants, location of school (urban or rural), work experience, definition of mental health, signs and symptoms of mental illness among school children, teaching styles, PTA meetings, physical exercises, interventions when a child faces crisis, factors within school environment that affect mental health such as bullying, resource availability, punishments, drug abuse, relationships (child to child, teacher to child) and mechanisms used in identifying mental health problems such as BESS.

4.2 Demographic Characteristics of the Primary School Teachers

This section gives demographic characteristics of the study participants from selected schools, including their sex, age, location type (urban or rural), zone and school in which they were interviewed, their work experience, qualification, and sex ratio by location type.

4.2.1 Gender of the study participants.

Table 1: Distribution of study participants by Gender

Gender	Frequency	Percentage
Male	75	25%
Female	225	75%
Total	300	100%

4.2.2 Age of participants.

Figure 4.1 shows study participants by age.

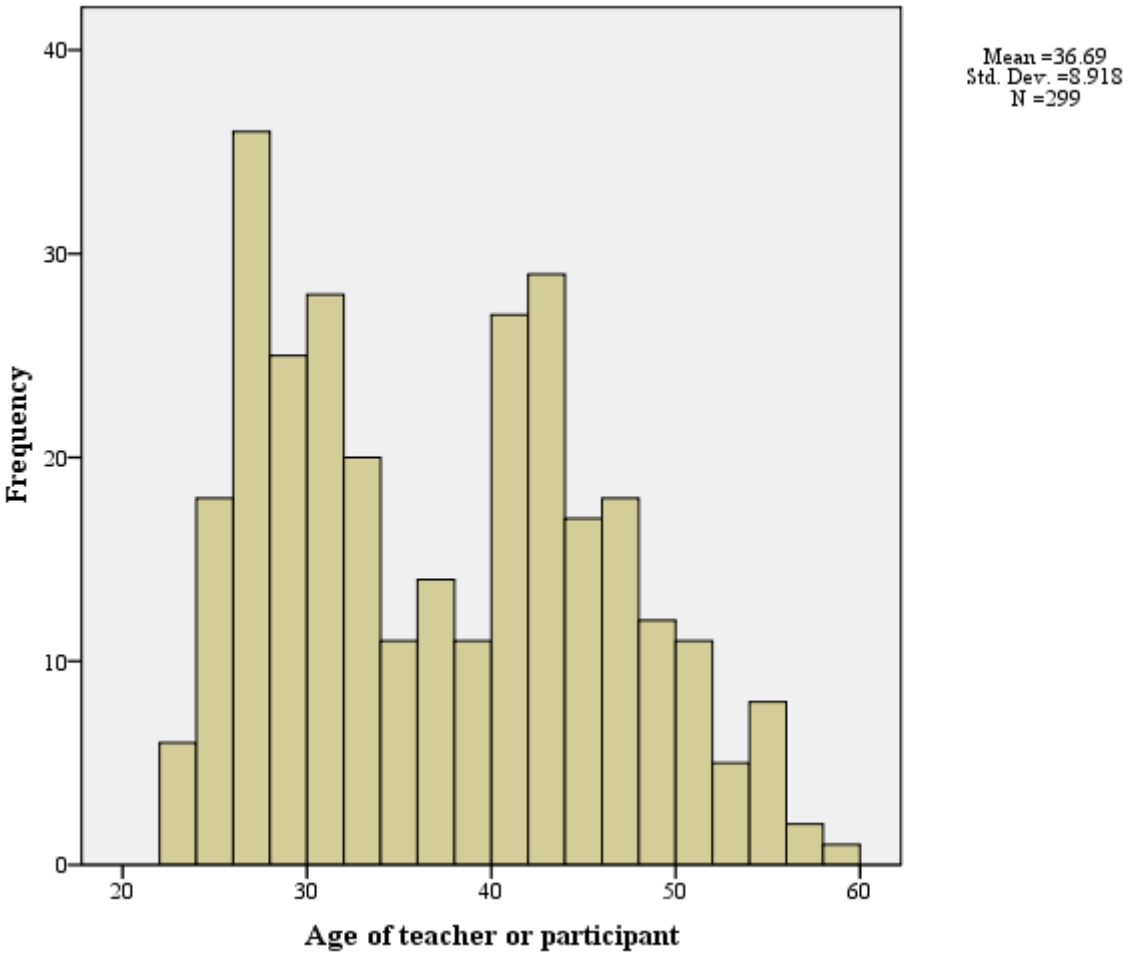


Figure 1: Age of study participants (N = 300)

The mean age of participants was 36.7 (SD = 8.92) years. Most of the participants were aged between 26 to 28 years. There was no significance difference in terms of age and the role in mental health promotion. Thus, whether the teacher is young or old by age, their knowledge and activities towards promotion of mental health of the school child were noted to be similar.

4.2.3 Distribution by location type.

Table 4.2 shows the distribution of study participants by location (urban / rural).

Table 2: Distribution of study participants by Location Type (urban/rural)

Location type	Frequency	Percentage
Urban	146	48.7%
Rural	154	51.3%
Total	300	100%

4.2.4 Distribution by zone.

Figure 4.2 shows the distribution of study participants by Zone.

Primary schools are distributed into zones thus geographical locations to district administration for easy management. There are 18 teaching zones in Zomba District thus, 15 in the rural areas and 3 in the urban areas. Among the 18 zones, 6 teaching zones which are within 30 kilometers from Zomba Centre were randomly sampled. The 6 sampled teaching zones included; Chikowi, Likangala, Mponda, Chikala, Songani and Namadidi. Participants representing each teaching zone included; 27.7% in Songani zone; 21.0% were interviewed in Mponda zone; 14.0% were interviewed in Chikowi zone; 13.7% were interviewed in Likangala zone; 13.3% were interviewed in Chikala zone; and 10.3% were interviewed in Namadidi zone.

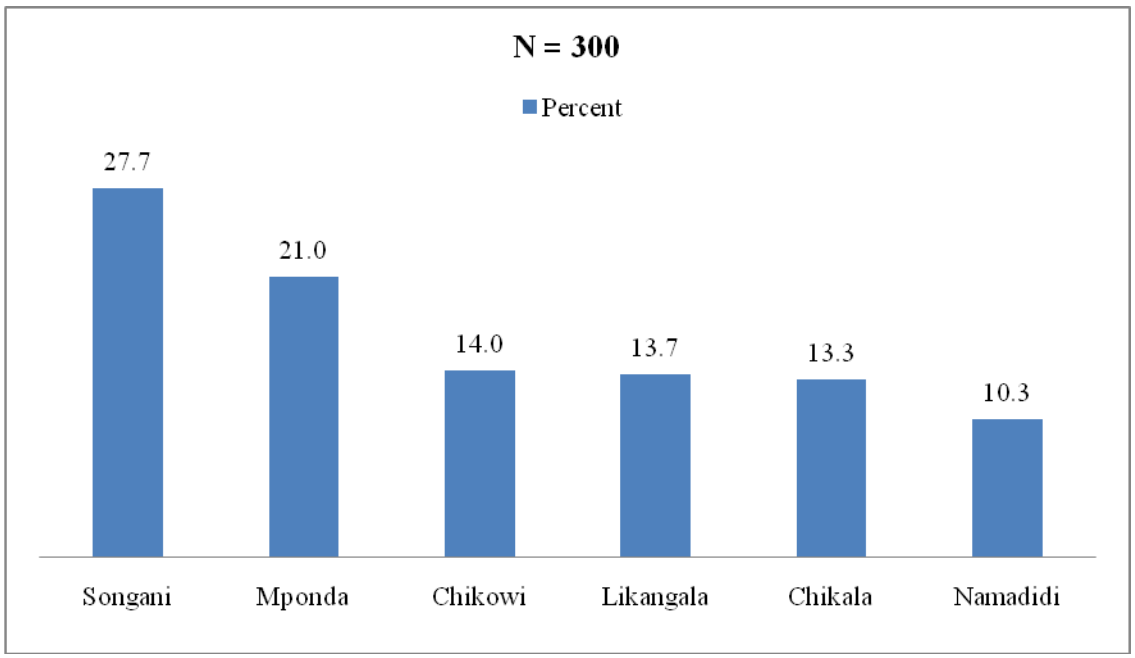


Figure 2: Distribution of study participants by Zone

4.2.5 Distribution of study participants per School.

Figure 4.3 shows total number of study participants who participated in this research study per primary school

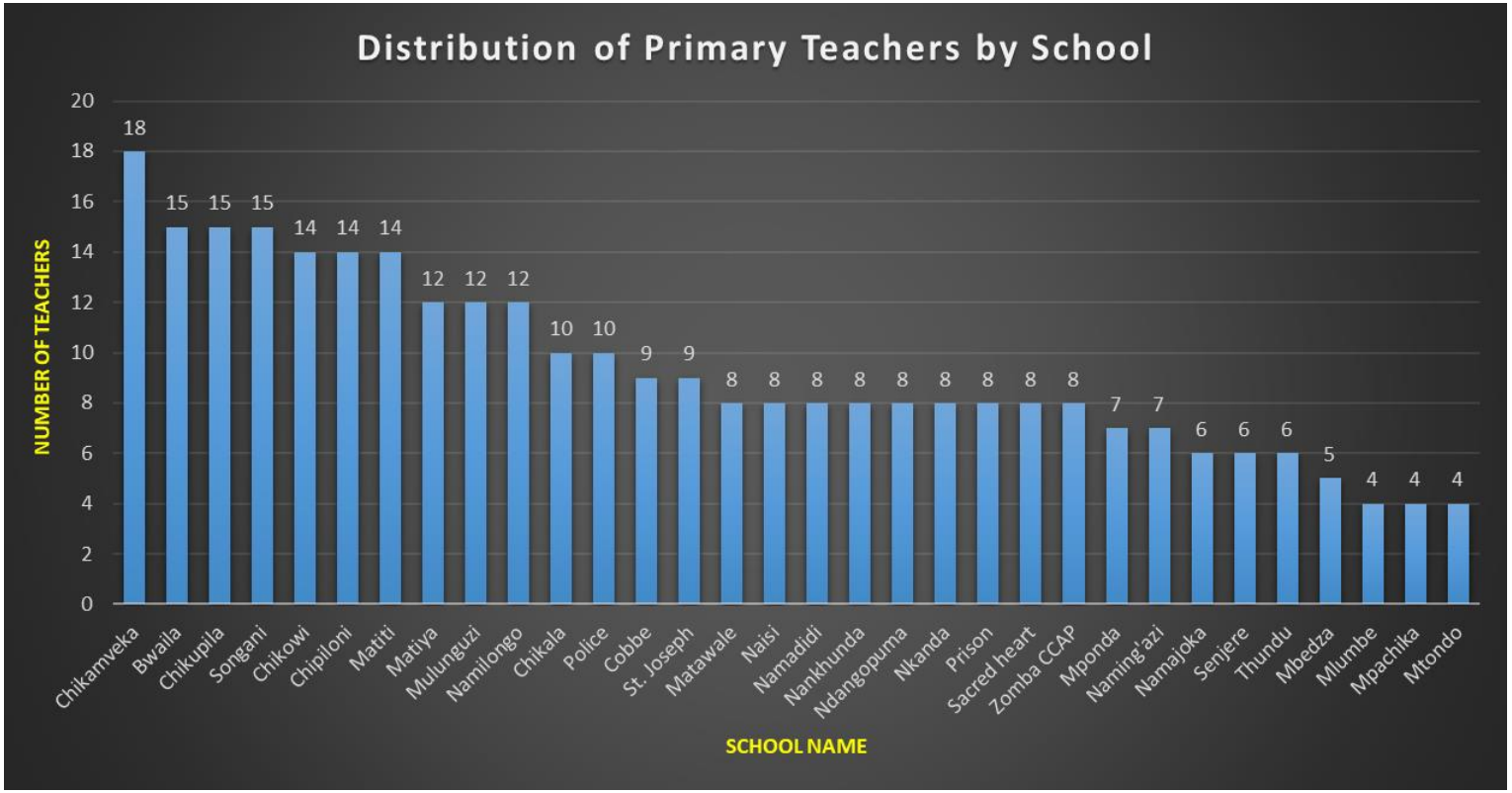


Figure 3: Study participants by School (N=300)

4.2.6 Study participants by number of years of teaching experience.

Figure 4.4 shows the distribution of study participants by their number of years of teaching experience. Most of the study participants (38.7%, n = 116) had worked for 15 years and above, with 23.0% (n = 69) having worked for less than 5 years. Teaching experience in a school environment is vital in relation to mental health promotion. As the years of experience increases, the teacher gains experience in terms of assessment of behaviors displayed by a school child. This experience contributes to early identification of mental health problems and early intervention.

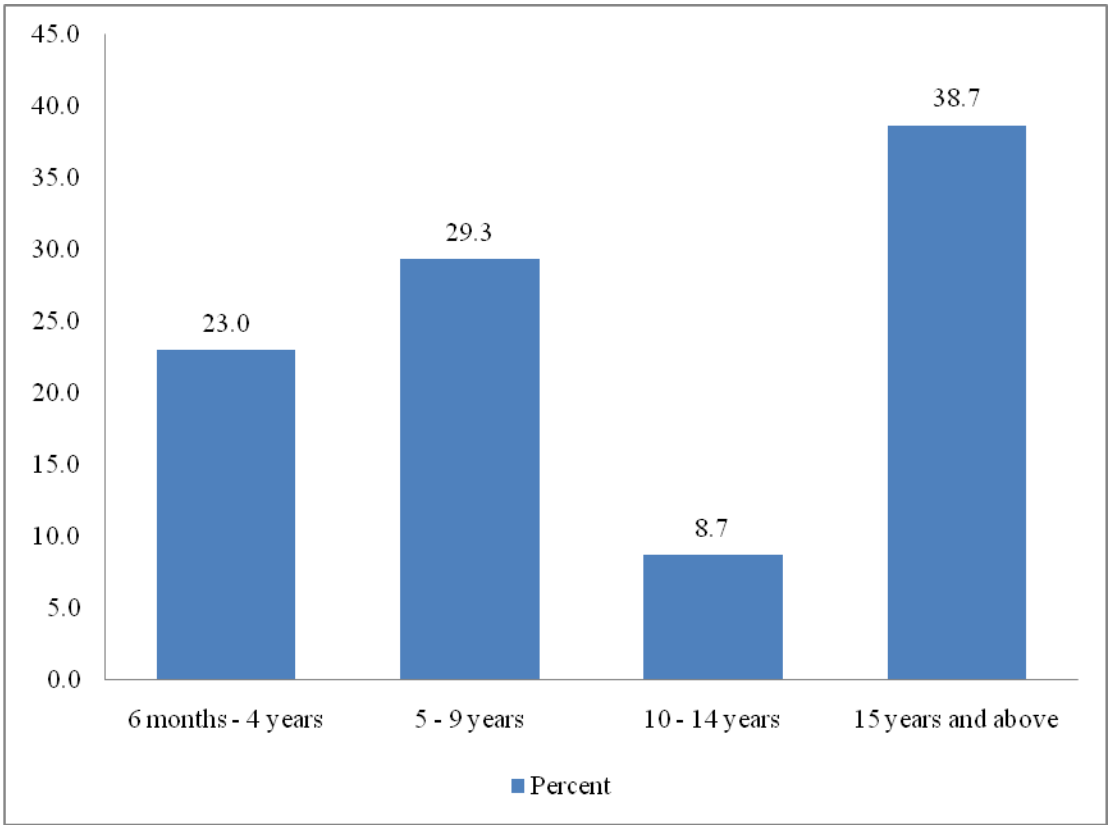


Figure 4: Study participants by Number of years of Teaching Experience (N=300)

4.2.7 Qualification of study participants.

Figure 4.5 presents information about qualification of study participants who were interviewed. Majority of study participants had a certificate in teaching, 1.3% (n = 4) of the teachers had a diploma in teaching, and only 0.3% (n = 1) of the teachers had a degree in teaching. The qualification of the teacher has an impact on the role played towards the promotion of mental health. The higher the qualification, the more skills in managing school children with mental health problems.

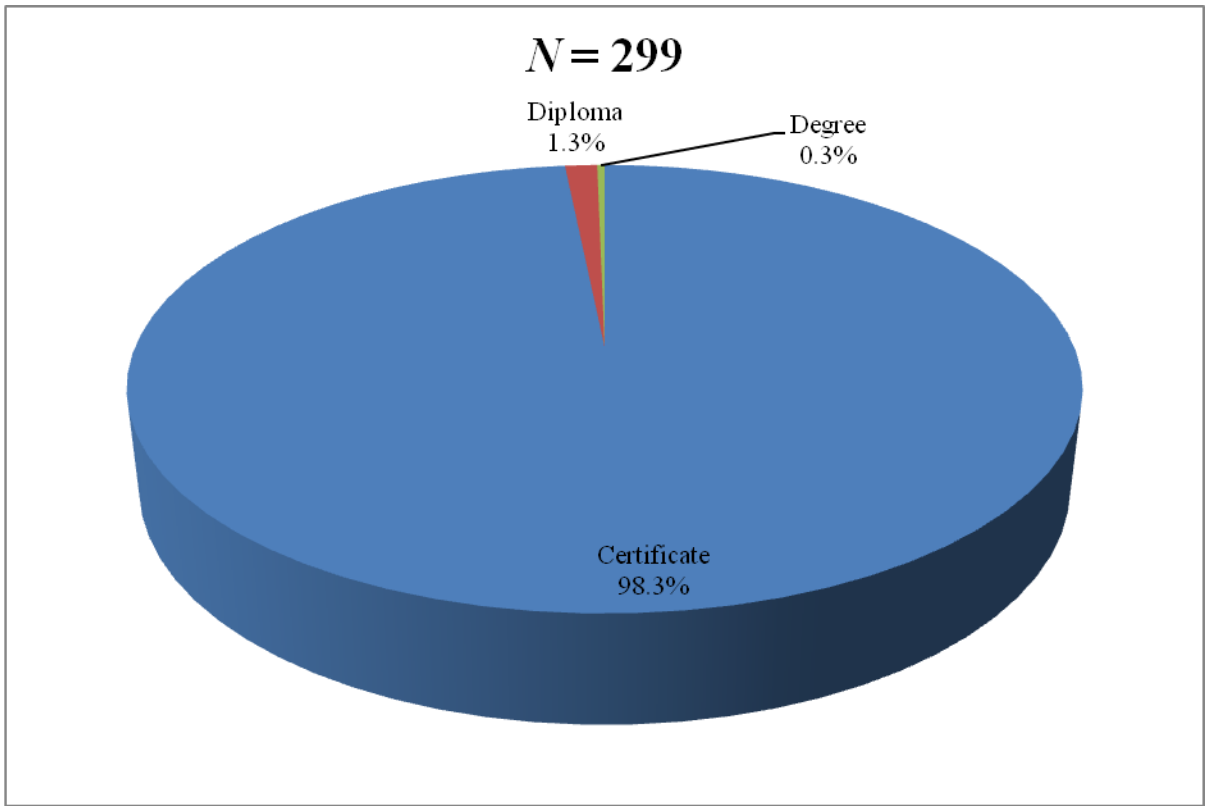


Figure 5: Study participants by their Qualification

4.3 Study Participants Knowledge on Mental Health Promotion for School Children

Participants' knowledge was assessed in relation to mental health definition and common signs of mental health. To assess primary school teachers' knowledge on mental health promotion for school children, teachers were asked to rate two definitions of mental health (one correct, the other wrong), as well as, common signs of mental illness that are true, on a 5 – point agreement scale (1 = Strongly disagree (StD); 2 = Disagree (D), 3 = Not sure, 4 = Agree (A); 5 = Strongly agree (StA). Table 4.5 presents results of the analysis. Most of the teachers either strongly disagreed (35.4%, n = 106) or disagreed (49.2%, n = 147) with the true definition. On average, teachers disagreed with the true definition of mental health (M = 1.9, SD = 0.98). However, the mean rating score for the wrong definition was almost 3 (M = 2.5, SD = 1.37), implying that on average teachers were not sure about the wrong definition.

In addition, when the mean rating scores for the common signs of mental illness are arranged in descending order, results show that on average, teachers are not sure of "constant tiredness in school (M = 3.0, SD = 1.34); "Self-blaming" (M = 2.9, SD = 1.31); "Withdrawal" (M = 2.6, SD = 1.26); and "Poor concentration" (M = 2.5, SD = 1.38) as common signs of mental illness since their rating scores are closer to 3 (Not sure) than they are to 4 (Agree). In addition, the mean rating scores for "Lack of problem solving skills" (M = 2.4, SD = 1.24); "Irritability" (M = 2.4, SD = 1.29); "Over activity" (M = 2.2, SD = 1.24); and "Destructive behaviour" (M = 2.0, SD = 0.94) are closer to 2 (Disagree) than they are to 3 (Not sure) or more. This implies that on average, teachers disagree with these as common signs of mental illness.

Table 3: Agreement Rating of Participants on the Definition and Common Signs of Mental Illness (N = 299)

Knowledge Area	Agreement Rating					Mean (SD)
	St D	D	Not sure	A	St A	
A. Definition						
Definition 1 (True definition)	106 (35.4)	147 (49.2)	14 (4.7)	24 (8.0)	8 (2.7)	1.9 (0.98)
Definition 2 (Wrong definition)	111 (37.1)	48 (16.1)	41 (13.7)	83 (27.8)	16 (5.4)	2.5 (1.37)
B. Common signs of mental illness						
Constant tiredness in school	72 (24.1)	34 (11.4)	53 (17.7)	115 (38.5)	25 (8.4)	3.0 (1.34)
Self-blaming	67 (22.4)	42 (14.0)	54 (18.1)	115 (38.5)	21 (7.0)	2.9 (1.31)
Withdrawal	73 (24.4)	84 (28.1)	44 (14.7)	84 (28.1)	14 (4.7)	2.6 (1.26)
Poor concentration	102 (34.1)	78 (26.1)	22 (7.4)	74 (24.7)	23 (7.7)	2.5 (1.38)
Lack of problem solving skills	86 (28.8)	95 (31.8)	30 (10.0)	79 (26.4)	9 (3.0)	2.4 (1.24)
Irritability	103 (34.4)	81 (27.1)	31 (10.4)	70 (23.4)	14 (4.7)	2.4 (1.29)
Over activity	121 (40.5)	87 (29.1)	22 (7.4)	59 (19.7)	10 (3.3)	2.2 (1.24)
Destructive behavior	96 (32.1)	156 (52.2)	12 (4.0)	32 (10.7)	3 (1.0)	2.0 (0.94)

***N* = 299**

Strongly disagree and disagree responses on the signs and symptoms of mental illness among school children is an indication that there is lack of capacity on identification of mental illness. This would lead to delayed identification and management of mental illness among school children. In addition, those teachers who indicated that they are not sure about such signs lack skills in identifying school children with mental illness.

4.3.1 Differences in Knowledge of Mental Health promotion by participant Location (Urban Vs. Rural).

Teachers differed significantly in their mean scores of knowledge of: *when pupils are feeling very sad* ($t(297)=-2.095$, $P = 0.037$); *withdrawal* ($t(297)=2.154$, $P = 0.032$); and *poor concentration* ($t(297)=2.077$, $P = 0.039$), as common signs of mental health problems as the p-values for their association with knowledge were all less than 0.05. However, teachers did not differ significantly in their mean scores of both mental health definition 1 ($t(297)=0.554$, $P = 0.580$) and mental health definition 2 ($t(297)=-1.510$, $P = 0.132$); and in their mean scores of knowledge of: *constant tiredness in school* ($t(297)=0.629$, $P = 0.530$); *over activity* ($t(297)=0.487$, $P = 0.627$); *destructive behaviour* ($t(297)=1.027$, $P = 0.305$); *lack of problem solving skills* ($t(297)= 1.257$, $P = 0.210$); *self-blaming* ($t(297)= 1.127$, $P = 0.242$); *irritability* ($t(297)=-1.221$, $P = 0.223$), as common signs of mental health problems($P \geq 0.05$). These findings imply that there are no differences among participants in rural and urban areas in terms of their lack of capacity on identification of mental illness or mental health promotion.

Table 5 presents the results of the t-test for the difference between urban and rural participants in their mean knowledge scores

Table 4: Independent Samples T-test for differences in Knowledge of Mental Health promotion by participant Location (Urban Vs. Rural).

Knowledge parameter	*t*(297)	*P value*
Mental health definition 1	0.554	0.580
Mental health definition 2	-1.510	0.132
Know when pupils are feeling very sad	-2.095	0.037
Withdrawal	2.154	0.032
Poor concentration	2.077	0.039
Constant tiredness in school	0.629	0.530
Over activity	0.487	0.627
Destructive behavior	1.027	0.305
Lack of problem solving skills	1.257	0.210
Self-blaming	1.172	0.242
Irritability	1.221	0.223

4.3.2 Knowledge of mental health promotion by participant years of work experience.

In the sample of 299 teachers, 62.3% of those who indicated that they know how to promote school child mental health had worked for 6 months to 4 years; 63.6% had worked for 5 to 9 years; 61.5% had worked for 10 to 14 years; and 54.8% had worked for 15 years and above. The proportion of teachers with knowledge increases from 62.3% to 63.6% as experience increases from 6 months to 9 years, and sharply decreases to 54.8% as their experience further increases from 15 years and above (**Figure 7).**

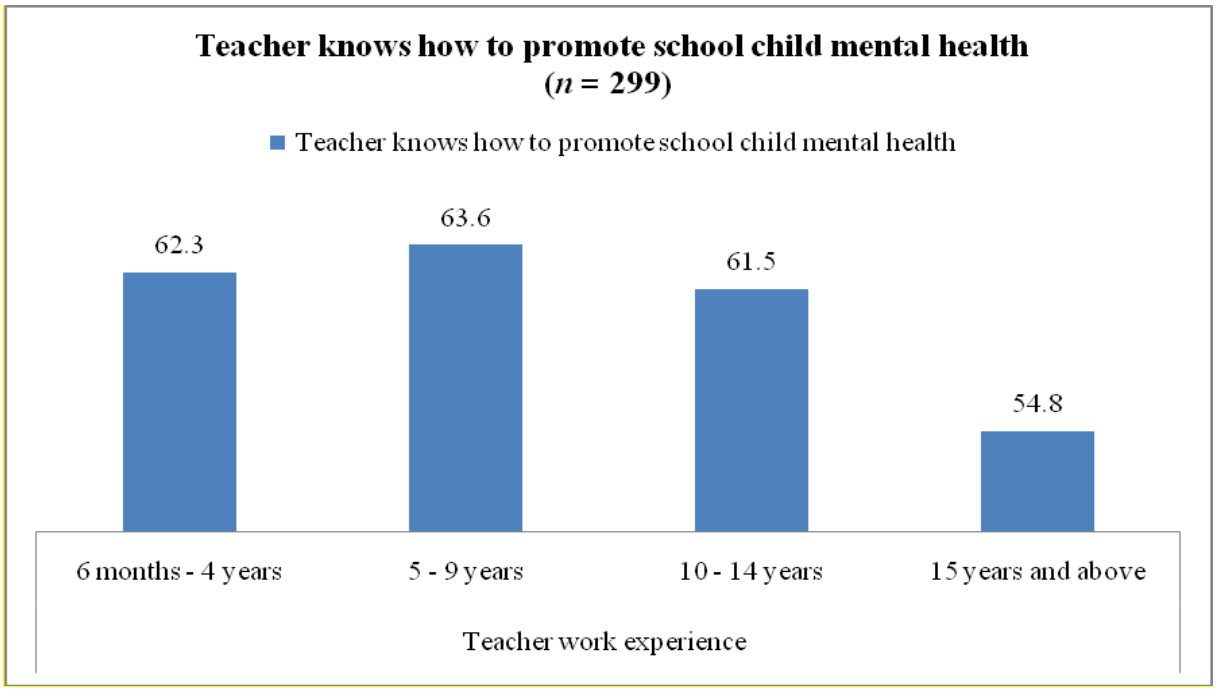


Figure 6: Participants knowledge on promotion of school child mental health

However, the Pearson Chi square test for the association between knowledge on promotion of school child mental health and experience shows that these differences are not statistically significant at 5% significance level ($P = 0.591$). More importantly, the linear-by-linear association indicates that there is no significant trend for teacher's knowledge of mental health to increase with increased experience at $P = 0.224$. However, the expectation is that with more teaching experience, the teacher would be in a better position to promote mental health of the school child though this is contrary to the findings. (Table 6).

Table 5: Association between Knowledge of Child Mental Health Promotion and Participant Experience

	Experience in years					
	6 months - 4 years	5 - 9 years	10 - 14 years	15 years and above	***P* value**	***P* value for trend**
Number in group	69	88	26	115	0.591	0.224
Percentage indicating they know how to promote mental health	62.3%	63.6%	61.5%	54.8%		

In summary, results of the assessment of primary school teachers' knowledge on mental health promotion for school children have shown that on average teachers do not know the definition of mental health, including common signs of mental illness.

4.4 Activities that are conducted by Participants Aiming at Promoting Mental Health of School Children

The study results indicate that there a number of activities that are conducted by Participants in order to promote mental health of the school child. Activities performed towards promotion of mental health differ among participants depending on knowledge, experience encountering a child presenting with mental health problems and availability of resources for promoting mental health. The findings have shown that there are several activities performed by participants which aim at promoting mental health. However, some participants are not aware that part of their daily routine work such as providing positive feedback during classroom activities is one of mental health promotion activity.

Table 8, presents results of how teachers promote mental health in schools they teach. Twenty-two percent (22.0%, n = 66) of the teachers ensure good teacher – child relationship and encourage child participation during physical activities; 20.3% (n = 61) of the teachers provide positive feedback during classroom activities; 4.0% (n = 12) foster anti-bullying behavioural activities; 1.3% (n = 4) conduct other mental health activities; while 30.3% (n = 91) did not respond to the question thus, they reported that they do not know how to promote mental health of the school child. Participants who indicated that they do not know how to promote mental health of a school child signify that even if a school child may present with signs and symptoms of mental illness,

Table 6: Activities for promoting mental health in primary schools

Way of promoting mental health	Frequency	Percentage
No response	90.9	30.3%
Good teacher-school child relationship	66	22.0%
Encouraging child participation during physical activities	66	22.0%
Provision of positive feedback during classroom activities	60.9	20.3%
Fostering anti bullying behaviours	12	4.0%
Other ways	3.9	1.3%
Total	300	100%

4.4.1 Presence of school children with mental health problems in Participants class.

Study participants were also asked whether they have pupils with mental health problems in their class. Figure 9 presents the results. Eighty-seven percent (87.0%, n = 261) of the teachers indicated that they have pupils with mental health problems in their class.

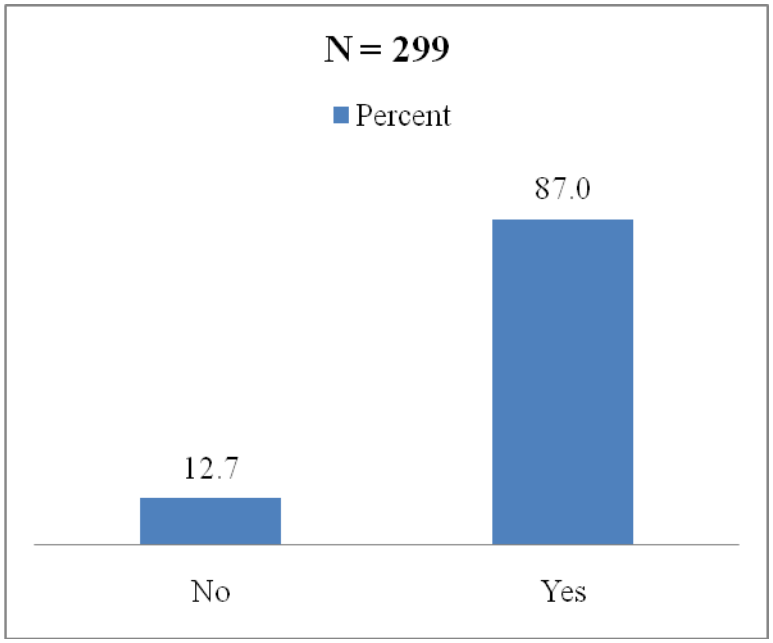


Figure 7: Presence of Pupils with Mental Illness in the Participant's Class

4.4.2 Frequency of Parents –Teachers Association (PTA) meetings in an Academic Year.

All the teachers (100%) who were interviewed reported to have Parents-Teachers Association in their schools. Therefore, study participants were asked to rate the frequency of PTA meetings in an academic year. Table 7 presents the results.

Twenty-three percent (23.3%, n = 70) teachers did not know how many times PTA meet in an academic year; 40.7% (n = 122) indicated their PTA meets once in an academic term; 32.3% (n = 97) indicated their PTA meets monthly; 2.3% (n = 7) indicated their PTA meets fortnightly; while only 1% (n = 3) indicated their PTA meets once in an academic year.

Table 7: Frequency of PTA meetings in an academic year

Frequency of PTA meetings	Frequency	Percentage
Fortnight	7	2.3%
Monthly	97	32.3%
Once in an academic year	3	1.0%
Don't know	70	23.3%
Once in an academic term	122	40.7%
No response	1	0.3%
Total	300	100%

4.4.3 Issues discussed during PTA meetings.

Participants were also asked to provide multiple responses[1] to a question concerning issues discussed during PTA meetings. Figure 10 presents the results.

Results in the table show that most responses (42.8%, n = 177) indicated that their PTAs discuss other issues than those outlined; 15.7% (n = 65) indicated their PTAs discuss good teacher – child relationship; 14.5% (n = 60) indicated their PTAs discuss prevention of bullying between and among children; 12.8% (n = 53) indicated their PTAs discuss types of punishments given to school children; 7.2% (n = 30) indicated their PTAs discuss good parent – child relationship; while 7.0% (n = 29) indicated their PTAs discuss good child – child relationship.

[1] A total of N = 414 multiple responses, with each category presented as a percent of responses

Table 8: Issues Discussed During PTA Meetings

Issues discussed during PTA	Percentage of Responses
Good teacher-child relationship	15.7%
Prevention of bullying between and among children	14.7%
Types of punishments given to school children	12.8%
Good parent- child relationship	7.2%
Good child-child relationship	7.0%
Other issues	42.8%

4.4.4 Time when teachers develop child's mental health skills within the school environment.

Child mental health skills are essential life skills that support wellbeing and positive mental health. Such skills promote child's ability to cope with difficulties and help to prevent mental health problems. Some of these include: coping with frustrations or worries, getting along with others, problem solving and creation of friendship. Therefore, study participants were also asked to indicate times when they develop children's mental health skills. Figure 11 presents the results.

Most of the study participants (58.7%, n = 176) develop child's mental health skills during classroom lessons; 35.1% (n = 105) develop them during extracurricular activities or physical exercises; while 6.0% (n = 18) develop them at any other time when it is necessary.

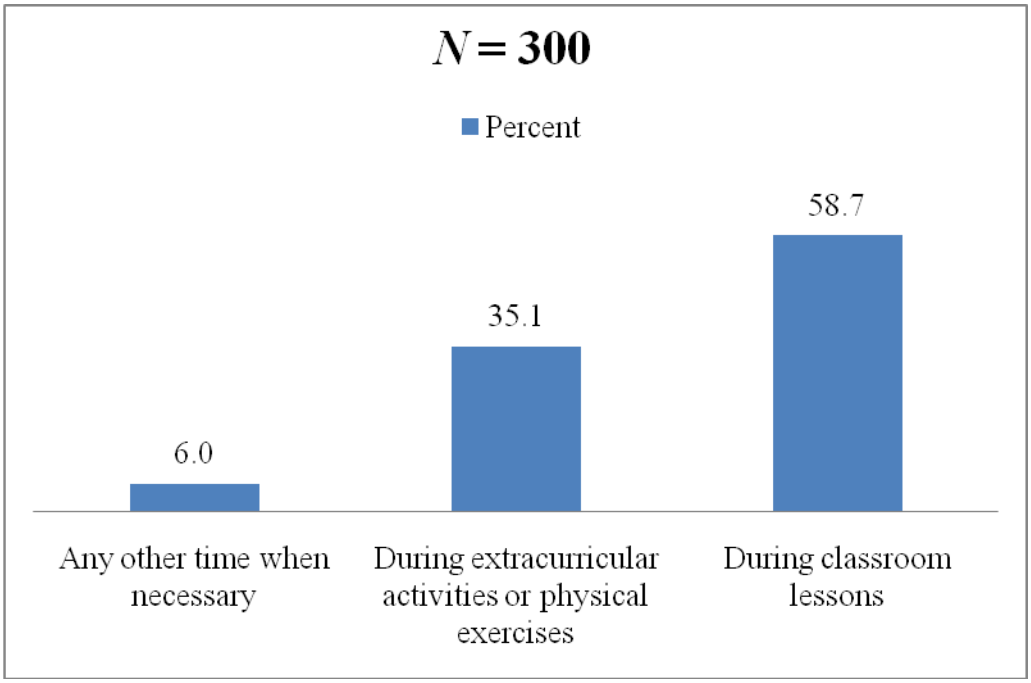


Figure 8: Time when teachers develop child's mental health skills within the school environment

4.4.5 Most common teaching styles being practiced by participant/teacher[2].

A teaching style that encourages the development of personal skills will be the most effective in the promotion of mental health for school child, for example, storytelling, rhyming and acting games, having the children work together to build something, and creative activities such as art, dance, and music. The most common teaching styles as reported by study participants were; "having the children work together to build something" (25%; n = 156), "creative activities" (18.6%; n = 116), "story telling" (18.4%; n = 115), "acting games" (6.6%; n = 41), "rhyming" (2.1%; n = 13) while 29.3% (n = 183) indicated "other teaching styles".

[2] Teachers provided 624 multiple responses, with each category presented as percentage of responses

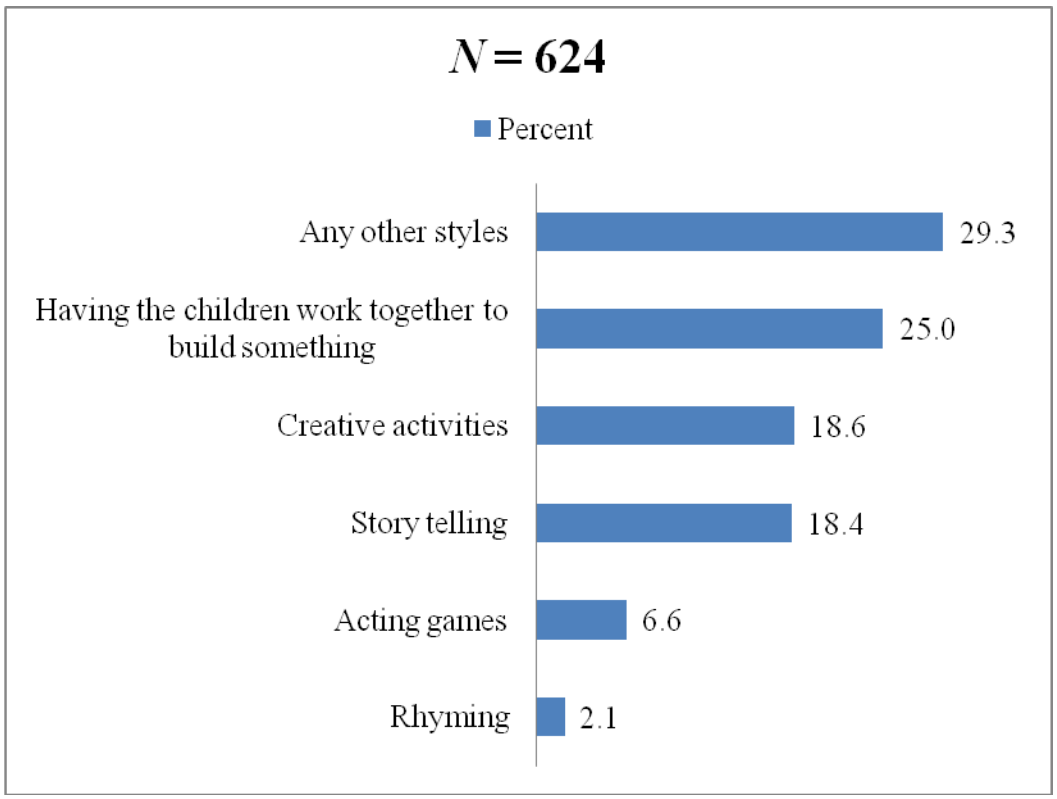


Figure 9: Most common teaching styles being practiced by study participants

4.4.5.1 Other common teaching styles being practiced by teachers.[3]

Table 9: Other common teaching styles by category and group

Modern	Responses	%	Traditional	Responses	%
Involvement			***Individual work***		
Discussion	85	13.9	Q & A	82	13.4
Role play	75	12.3	Individual work	23	3.8
Brainstorming	21	3.4	Practicing	4	0.7
Peer assessment	6	1.0	Extra work	1	0.2
Peer teaching	5	0.8	Learner's experiences	1	0.2
Participatory work	4	0.7	Case study	1	0.2
Pupil-teacher interaction	3	0.5	Random spot checks	1	0.2
Field trips	3	0.5	Written exercises	1	0.2
Games	1	0.2	Trial and error	1	0.2
Experimentation	1	0.2	Research	1	0.2
Pictures sitting plan	1	0.2	Project	1	0.2
Activity cards	1	0.2	Drawings	1	0.2
Sub-total	**206**	**33.8**	**Sub-total**	**118**	**19.3**
Team work			***Rote learning***		
Group work	67	11.0	Demonstration	80	13.1
Pair work	47	7.7	Explanations	44	7.2
Gallery walk	3	0.5	Singing	13	2.1
Future's wheels	3	0.5	Drama	9	1.5
Excursions	2	0.3	Observation	4	0.7
Bus stop	1	0.2	Gestures	3	0.5
Buddy system	1	0.2	Listening and speaking	2	0.3
Think, pair and share	1	0.2	Counselling	1	0.2
Chaining	1	0.2	Debate	1	0.2
			Watch and listen	1	0.2
			Lecture	1	0.2
			Charts	1	0.2
Sub-total	**126**	**20.7**	**Sub-total**	**160**	**26.2**
Total	**332**	**54.4**	**Total**	**278**	**45.6**

[3] The grouping of the codes (categories) is based on Zemelman et al. (2005)'s taxonomy that groups teaching styles into modern and traditional, and further into team work and involvement in discussions; and rote learning and individual work; respectively.

4.4.6 Teaching styles most liked by children.

Participants reported that there are some of the teaching styles which school children like most than others. The results had shown that most children (25.7%, n = 77) like having them work together to build something; followed by creative activities (21.0%, n = 63) (Refer to Figure 13)

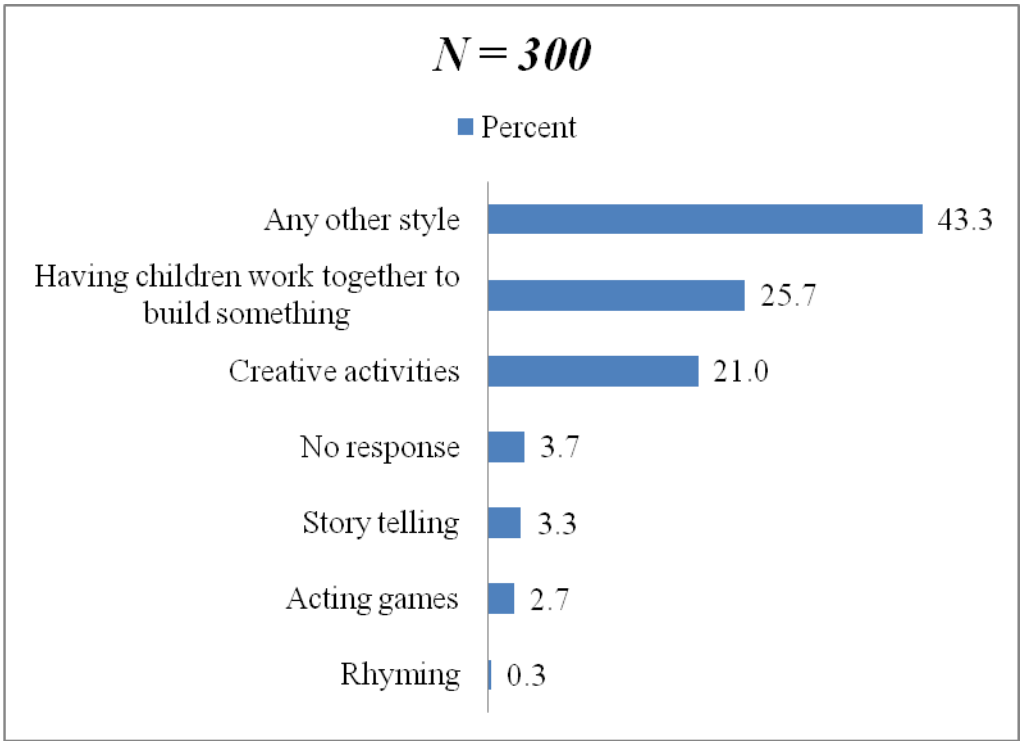


Figure 10: Teaching styles most liked by children

4.4.7 Non dominant teaching styles mostly liked by children.

A variety of teaching styles are used among teachers depending on the subject and their assessment of the content. Despite having such a variety of teaching styles, school children have their own preferences among the teaching styles. Their preference for certain teaching styles may be due to the way the teaching style allow them to actively participate, think and discuss with their counterparts in the classroom. Study participants reported that most common teaching styles liked by school children are group work,15.7% (n = 47), followed by "Question and answer" (7.0%, n = 21), then by 'Role play" (6.7%, n = 20). Knowledge on the most liked teaching styles for the children would allow teachers use a style that will make school children happy, thus promoting their social emotional well-being. However, 55% of study participants reported that they do not know the teaching styles mostly liked by school children. This implies that if the teaching style is not conducive for the school children their academic goals cannot be achieved while at the same time compromising their emotional well-being. This would therefore result in most school children being affected psychologically.

Table 10: Teaching Style

Teaching style	Frequency	Percentage
Group work	47	15.7
Question and answer	21	7
Role Play	21	7
Discussions	14	4.7
Demonstrations	7	2.3
Singing	4	1.3
Pair Work	3	1.0
Explanation	3	1.0
Drama	3	1.0
Participatory Method	3	1.0
Watch and listen	1	0.3
Think, Pick, Share	1	0.3
Listening and speaking	1	0.3
Lecture	1	0.3
Individual work	1	0.3
Games	1	0.3
Enter Education	1	0.3
Chaining	1	0.3
All are best depending on situation	1	0.3
Don’t know teaching style most liked by school children	165	55.0
Total	**300**	100

4.4.8 How teachers help children in difficult moments like hospitalization, loss of parents, separation of parents, accidents, injuries and many others.

Child development requires achievement of skills that are mastered in stages, over life span and such skills include cognition (learning and problem solving), social interaction and emotional regulation, speech and language, sensory awareness and physical skills. Knowledge on child development allows early detection of abnormality either by parents/ caregivers and educators during pre -school and school period. Early psychological and social crises faced by children can have both short and long term impact on the brain development and the way the brain would handle stress. Life crises such as abuse or neglect, the death of a parent, food insufficiency, housing instability, a parent living with mental illness, or exposure to conflict or violence in the home or neighbourhood, hospitalisation have a negative impact on child development which would later in life affect mental health. Children do react differently from the situations they face at home which may even be brought in the classrooms thus affecting them mentally, physically, spiritually, academically and socially. Therefore, teachers as one of the promoters of mental health for the school child, they need to be aware of such crises, their impact and intervene depending on the nature and degree of the crisis. Table below shows how study participants assist school children facing life crises

Table 11: How Teachers help a child in difficult moments

Way of helping a child in difficult moments	Frequency	Percentage
Don't know what to do		0.3%
Left in the hands of parents to intervene		7.4%
Comforting them		71.0%
Other ways		21.3%

4.4.9 How else teachers help children in difficult moments like hospitalization, loss of parents, separation of parents, accidents, injuries and many others.

Table 12: How else teachers help a child in difficult moments

Way of helping a child in difficult moments	Frequency	Percentage
Guidance and counselling		9.6%
Escorting the child to hospital		7.6%
Visiting their homes		6.4%%
Providing spiritual and material support		4.4%
Giving first aid		4.4%
Referring to parents or PTA		1.7%
Escorting them to their homes		0.6%
Contributing money and helping the child		0.6%
Calling parents and guardians to discuss		0.6%
Promoting good relationship with such children		0.3%
Referring to the head teacher		0.3%
Referring them to church members		0.3%
Allowing them to socialise		0.3%
Never had the experience		0.3%
Involving other learners to cheer with their friend		0.3%
Don’t know		62.4%

N=343

4.4.10 What teacher does when they have pupils with mental health problems.

Teachers as primary care takers of school children have a number role to play when they have school children with mental health problems. Teachers as promoters of mental health they are involved in early identification of mental illness and early intervention. Depending on the level of mental illness presented by the school child, teachers can manage the child (through special needs teachers), refer to parents and guardians, refer the child to hospital for proper assessment and management. Therefore, figure 4.14 presents the results.

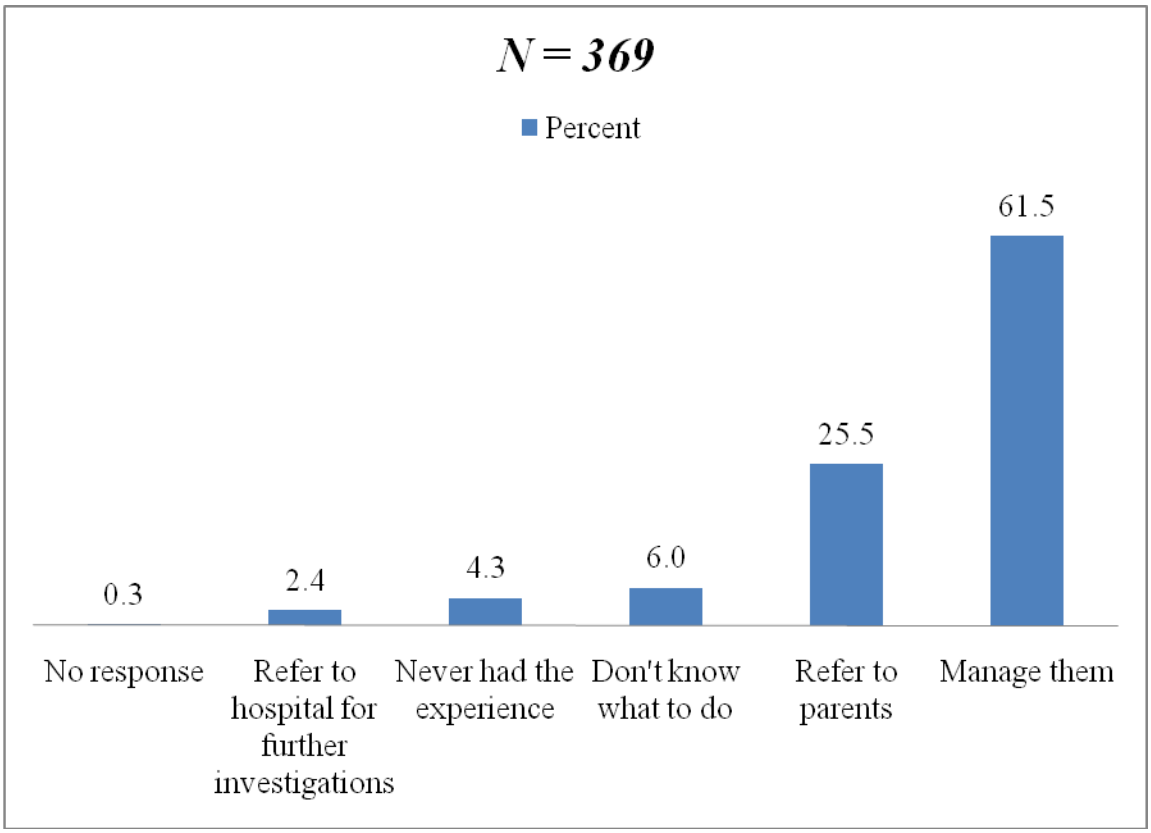


Figure 11: What teacher does when they have pupils with mental health problems

4.4.11 Teacher activities on promotion of mental health in the school.

Study participants have significant activities to be performed in order for mental health of school child to be promoted within the school environment. The results had shown that 99% of the teachers take a leading role in prevention of bullying , 84.3% have some lessons on mental health such as causes of mental illness through life skills, 98.7% inform pupils where to seek help in times of worries, disappointment and other crises, 99.7% teach school children that teasing and bullying are wrong and where to go for help, 100% encourages pupils celebrate their achievements, identify areas of strengths and improvements, and set high aspirations and goals, 100% fosters a conducive classroom environment where pupils are open enough to ask questions and explore their preconceptions about the topic. The results suggest that teachers as one of the main players in the promotion of mental health for the school child are taking a leading role. However, not all the teachers are aware of such activities as a result there is no uniformity in the management of a school child where there is need for early identification and intervention of any form of mental health problem. Table below highlights the findings

Table 13: Teacher activities on promotion of mental health in the school (N = 300)

Teacher activity on promotion of mental health within the school environment	Frequency		Percentage		Total
	Yes	No	Yes	No	
Teachers take a leading role in prevention of bullying within the school premises	296	4	99%	1%	300
Have some lessons on mental health such as causes of mental illness and its prevention (life skills)	252	48	84 %	16%	300
Informs pupils where to seek help in times of worries, disappointments, and other crisis	295	5	98.4%	1.6%	300
Pupils are taught that teasing and bullying are wrong and unacceptable and where to go for help	298	2	99.4%	0.6%	300
Encourages pupils celebrate their achievements, identify areas of strengths and improvements, and set high aspirations and goals	300	0	100%	0%	300
Fosters a conducive classroom environment where pupils are open enough to ask questions and explore their preconceptions about the topic	300	0	100%	0%	300

4.5 Mechanisms that help teachers identify mental health problems affecting primary schoolchildren

Study participants have a role of early identification of mental health problems among school children. Depending on the availability of resources, they can use the best mechanism suiting their environment in identifying school children with mental health problems. Early identification allows for early intervention hence preventing the rise of complications which would be very difficult to manage later in life. A five point Likert scale was used to assess the mechanisms that are available in identifying mental health problems among school children. The results have clearly shown that most of the participants are not aware of the mechanisms used in

identifying mental health problems among school children evidenced by them not agreeing, strongly disagreeing and being not sure of the mechanisms being used. For the study participants, the expected mechanisms to be easily mentioned were during classroom lessons and behaviour manifested by a child. However, 36.5% strongly disagreed to use of classroom lessons as a mechanism and 36.1% strongly disagreed to use of behaviour manifested by a child as a mechanism. Therefore, table 10 presents the results.

Table 14: Mechanism of identifying mental health problems

Mechanisms	**Agreement rating scale**					**Mean(SD)**
	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	
Universal screening of school children for the signs of mental disorders using BESS teacher form	87(29.1)	46(15.4)	58(19.4)	54(18.1)	54(18.1)	2.8(1.48)
Identification of protective and risk factors through meetings and case conferences	98(32.8)	26(8.7)	85(28.4)	51(17.1)	39(13.0)	2.7(1.41)
Reports from parents about changes noticed in their children's behaviour	102(34.1)	132(44.1)	11(3.7)	35(11.7)	19(6.4)	2.1(1.19)
During classroom lessons	109(36.5)	168(56.2)	11(3.7)	9(3.0)	2(0.7)	1.8(0.72)
Behaviour problems manifested by children	108(36.1)	174(58.2)	11(3.7)	6(2.0)	0(0.0)	1.7(0.63)
Close interaction with the children throughout the day	144(48.2)	127(42.5)	11(3.7)	14(4.7)	3(1.0)	1.7(0.83)

4.6 Factors which Influence Children's Mental Health within the School Environment

To determine factors which influence children's mental health within the school environment, study participants were asked to state the extent to which they think their school environment had influenced childrens' mental health on a 4 – point scale (1 = to no extent; 2 = to a lesser extent; 3 = to some extent; and 4 = to a greater extent). This outcome variable was then dichotomized into an outcome variable "*Environment of the school at which participant teaches influences children's mental health*" (0 = No; 1 = Yes).

4.6.1 Variable Selection.

Test of association with the following factors was performed at 5% significance level: "*How teacher would feel to have a mentally disturbed pupil in their classroom*"; "*Whether curriculum has mental health issues*"; "*Whether all children participate in the said extracurricular activities*"; "*Why other children do not participate in extracurricular activities*"; "*Whether the school has sufficient books, computers, and any other resources for their education*"; "*Whether bullying occurs at the school*"; "*Where and when bullying often occurs, if it does*"; "*Sex most often bullied on*"; "*Most common type of bullying*"; "*How teacher manages pupils who have misbehaved*"; "*Teacher's Sex*"; "*Location type*"; "*Teacher work experience*"; "*Qualifications of teacher/participant*"; "*Availability of school health committee*" and "*Availability of school bullying prevention and intervention plan*". Factors whose p – value was at most 0.25 were selected as potential predictors for the regression analysis.

4.6.2 Model Fitting.

Table 11 presents results of fitting a logistic regression model to the eight potential predictors outlined in Table 9, above. Results show that adjusting for other predictors, location type; most common type of bullying; and how teacher manages pupils who have misbehaved

could be significant factors which influence children's mental health within the school environment at 5% significance level. In particular, teachers who teach in rural schools have 8.11 times odds of indicating that the environment of the school at which they teach influences children's mental health as compared to those in the urban schools (OR = 8.114; 95% CI: 3.096, 21.269). In addition, teachers who mention “verbal” as the most common type of bullying have 4.27 times odds of indicating that the environment of the school at which they teach influences children's mental health as compared to those who mention “physical” (OR = 4.273; 95% CI: 1.833, 9.958). Furthermore, teachers who manage pupils who misbehave using ways other than disciplinary action and punishment have 84% lower odds of indicating that environment of the school at which they teach influences children's mental health as compared to those who manage pupils who misbehave using counselling (OR = 0.144; 95% CI: 0.027, 0.777).

A low p-value (less than 0.05) indicates that the results are of major importance. In this study, factors such as location of school, verbal bullying and management of children who have misbehaved have their p-values less than 0.05. Rural location has shown to have influenced mental health of school child (having Odds Ratio of 8.11). This might be as a result of having very few resources (both human and material resources) which can be used in mental health promotion. According to literature, factors such as lack of adequate resources affect mental health promotion in primary schools. Furthermore, drug such as Indian hemp were reported to have been used by most of children in the rural areas especially during break time. The way teachers manage school children who misbehave also influences mental health of that child. Literature has shown that school children undergoing corporal punishments are affected psychologically hence putting them at risk of mental illness. Verbal bullying came out as one of the factors influencing mental health of a school child having a p-value of 0.026. This implies

that a child is at risk of developing mental health problems as long as the child is a victim of bullying. Therefore, teachers have a role to play to prevent the acts of bullying within the school environment in order to promote mental health.

Table 15: Potential predictors for the outcome variable *"Environment of the school at which participant teaches influences children's mental health"*

Independent variable	χ^2	***P* - value**
Location type	19.437	<0.001
How teacher manages children who have misbehaved	13.542	0.003
Verbal bullying	7.151	0.026
Availability of school bullying prevention and intervention plan	2.745	0.098
Availability of school health committee	2.680	0.102
Why other children do not participate in extracurricular activities	4.176	0.124
Most common type of bullying	4.236	0.134
Whether all children participate in the said extracurricular activities	1.691	0.193

4.6.3 Multivariable analysis of factors influencing childrens mental health within the school environment

The factors which were found to have significance on mental health of the school child within the school environment were further analysed through multivariable approach. Such factors include location type (rural and urban), bullying type (verbal bullying and physical bullying) and management of school children who have misbehaved. Therefore, mental health promotion among school children would require such variables to be adjusted. Rural location has 8.11(81%) times Odds Ratio (OR) of influencing mental health of the school child than that of urban location. Therefore, location type would be adjusted by ensuring there are adequate

primary school teachers in the rural areas and increasing number of material resources which can be used by school children. In addition, there is need to work with the PTA so that those areas where school children access Indian hemp be banned. Verbal bullying has 4.276 (43%) times Odds Ratio (OR) of influencing mental health of the school child than physical. Bullying as one of catalyst for poor mental health among school children can also be addressed through involvement of the whole school community by making awareness of the impact it has on mental health of the school child. Types of punishments given to school children can also be discussed during PTA meetings and thereafter disseminate the information to the whole school community. Table 12 show the multivariable analysis of significant factors influencing mental health of the school child.

Table 16: Multivariable analysis of factors influencing children's mental health within the school environment

Factor	**b**	**Adjusted OR (95.0% C.I.)[4]**	**P-value[5]**
Location type			
Rural vs. Urban	2.094	8.114(3.096, 21.269)	<0.001
Most common type of bullying			
Verbal vs. Physical	1.452	4.273(1.833, 9.958)	0.009
Social vs. Physical	-17.056	0.000(0.000, ∞)	
How teacher manages pupils who have misbehaved			
Disciplinary action vs. counselling	0.627	1.872(0.610, 5.743)	<0.001
Punishment vs. counselling	0.381	1.463(0.620, 3.454)	
Other vs. counselling	-1.937	0.144(0.027, 0.777)	

[4] Wald test using Enter Method.
[5] Likelihood Ratio (LR) test using Forward addition method

4.6.4 Assessment of Model Fit.

Model fit is when outcome data and predicted data are compared. For a conclusion to be made that there is model fit, there is a very small difference between the observed and predicted data. A model is described to be well fitted if it produces more accurate data. A number of methods have been used in assessing model fit in this study findings. These methods include: Hosmer and Lemeshow Goodness-of-fit Test, classification and Area under the Receiver Operating Characteristics (ROC). All the models have proved to better fit. This implies that the presented data has a true picture of the mental health promotion status in the primary schools. Thus, if a participant teaches in a rural primary school, the role as a promoter of mental health of a school child is negatively influenced. This would therefore call for modifications so that mental health promotion is achieved as compared to participants working in urban areas. In addition, there is need for participants to be cautious when deciding the type of punishment given to a school child since some punishments negatively affect mental health of a child such as corporal punishment, public humiliation and even verbal bullying done by the teachers. Below is the expansion of the three models used.

Method 1: Hosmer and Lemeshow Goodness-of-fit Test

Table 13 presents results of the Hosmer and Lemeshow Goodness of Fit test for the data. Results show that the test is not statistically significant at 5% significance level (χ^2 (8) = 7.132, P = 0.522). In addition, the absolute differences between the observed and expected values for the ten groups are all very small, implying that the model in Table 11, above could be a better fit to the data.

Table 17: Contingency Table for Hosmer and Lemeshow Test

		Environment of the school at which participant teaches influences children's mental health = No		*Environment of the school at which participant teaches influences children's mental health* = Yes		
		Observed	**Expected**	**Observed**	**Expected**	**Total**
Step 1	1	26	25.967	0	.033	26
	2	28	27.547	0	.453	28
	3	27	27.120	1	.880	28
	4	23	24.507	3	1.493	26
	5	23	23.626	3	2.374	26
	6	25	22.384	1	3.616	26
	7	24	22.619	4	5.381	28
	8	19	21.828	11	8.172	30
	9	16	17.106	13	11.894	29
	10	9	7.296	9	10.704	18

Note[6]: H – L Gof χ^2 (8) = 7.132, P = 0.522

[6] H – L Gof in this context shall mean "Hosmer and Lemeshow Goodness of Fit

Method 2: Classification

The percentage of teachers correctly classified by the model is 83.4% > 70.0%, implying that the model could indeed be a better fit.

Table 18: Percentage of teachers correctly classified by the model

			Predicted		
			Environment of the school at which participant teaches influences children's mental health		Percentage
	Observed		No	Yes	**Correct**
Step 1	*Environment of the school at which participant teaches influences children's mental health*	No	213	7	96.8
		Yes	37	8	17.8
	Overall Percentage				**83.4**

Method 3: Area Under the Receiver Operating Characteristics (ROC) Curve

The area under the ROC curve is greater than 70.0% (AUC = 83.0%; 95% CI: 77.1%, 88.9%). The figure below shows that the graph has lean towards the left corner where the figures represent the true positives (sensitivity). According to the principles of ROC curves, the more the graph leans towards the left border the more accurate is the test. The area under curve lies between 0.5 to 1 where 0.5 denotes a bad classifier while 1 denotes an excellent classifier. This therefore implies that the model could really fit the data well.

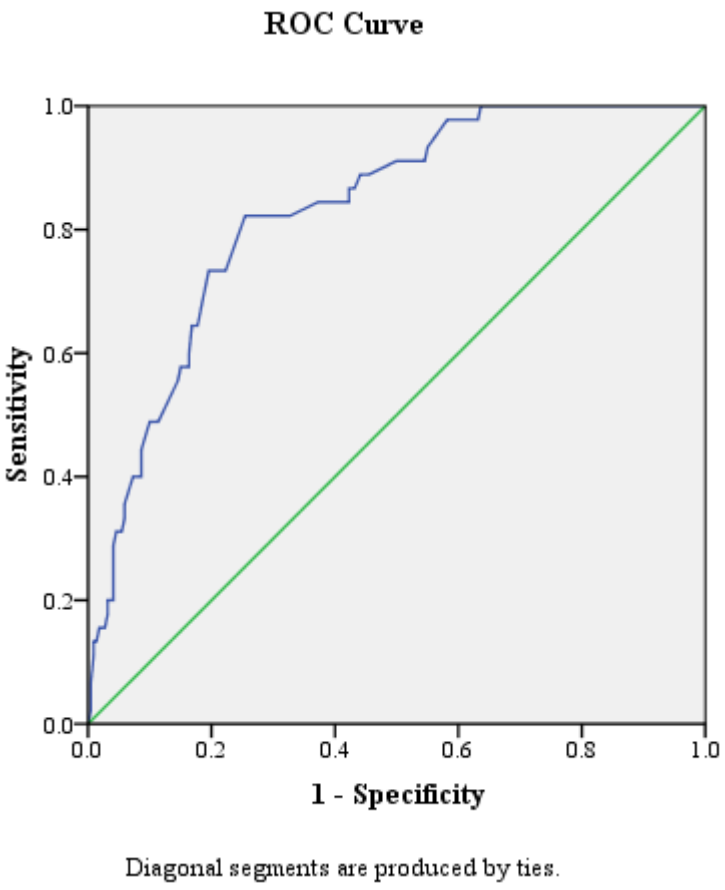


Figure 12: Area Under the ROC Curve

In summary, all the three assessment methods have agreed in showing that the model in Table 4.9 fits the data very well. This implies that "*Location type"*; "*Most common type of bullying*"; and "*How teacher manages pupils who have misbehaved"* are significant factors that influence children's mental health within the school environment at 5% significance level.

4.6.4.1 Other ways teacher uses to manage school children who misbehave.

When asked how else teachers managed pupils that misbehave, 12.9% (n = 40) mentioned disciplinary action as before but then "through punishment and mother group committee", while 10.0% (n = 31) mentioned "Guidance and counselling" as before (Refer to Figure 4.16)

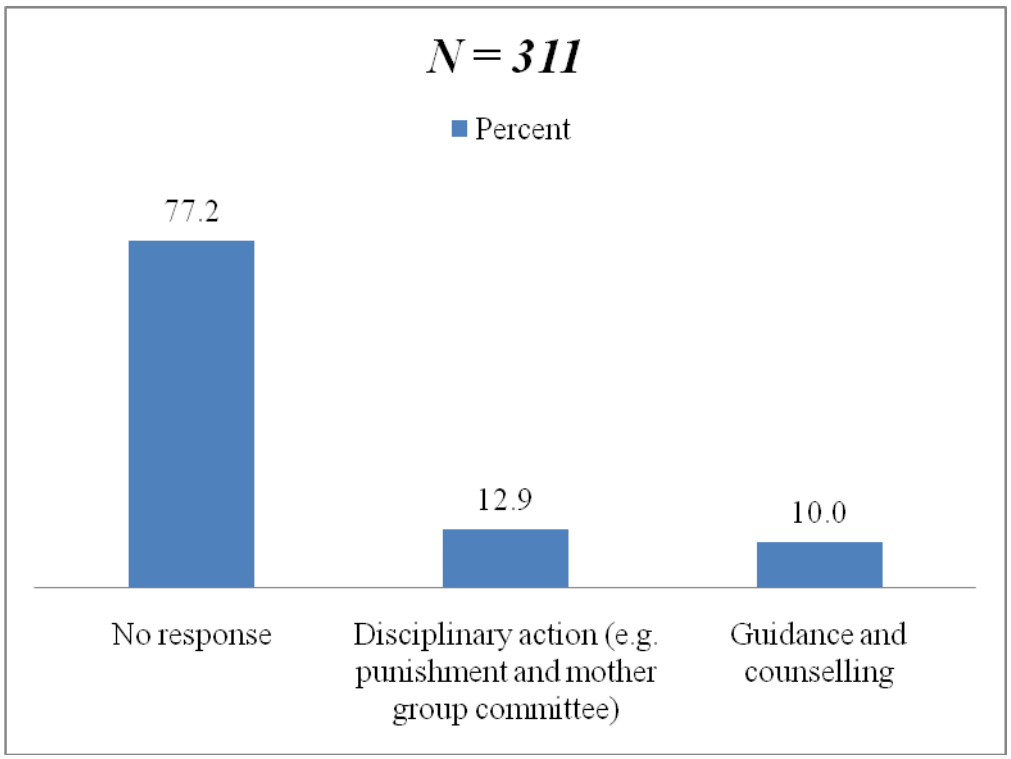


Figure 13: Other Ways Teacher Uses to Manage Pupils Who Misbehave

4.6.4.2 Common punishments given to pupils.

Punishments are one of the ways for managing school children who have misbehaved. Depending on the nature of the punishment, some may negatively affect mental health of the school child. When asked about common punishments they give to school children, most teachers just said “any other types” (87.0%, n = 295), 11.2% (n = 38) still insisted on “Calling parents”; 0.6% (n = 1) equally insisted on verbal abuse/ verbal bullying and public humiliation; while 0.3% (n = 1) mentioned about “detention” as a common punishment (Refer to Figure 4.17).

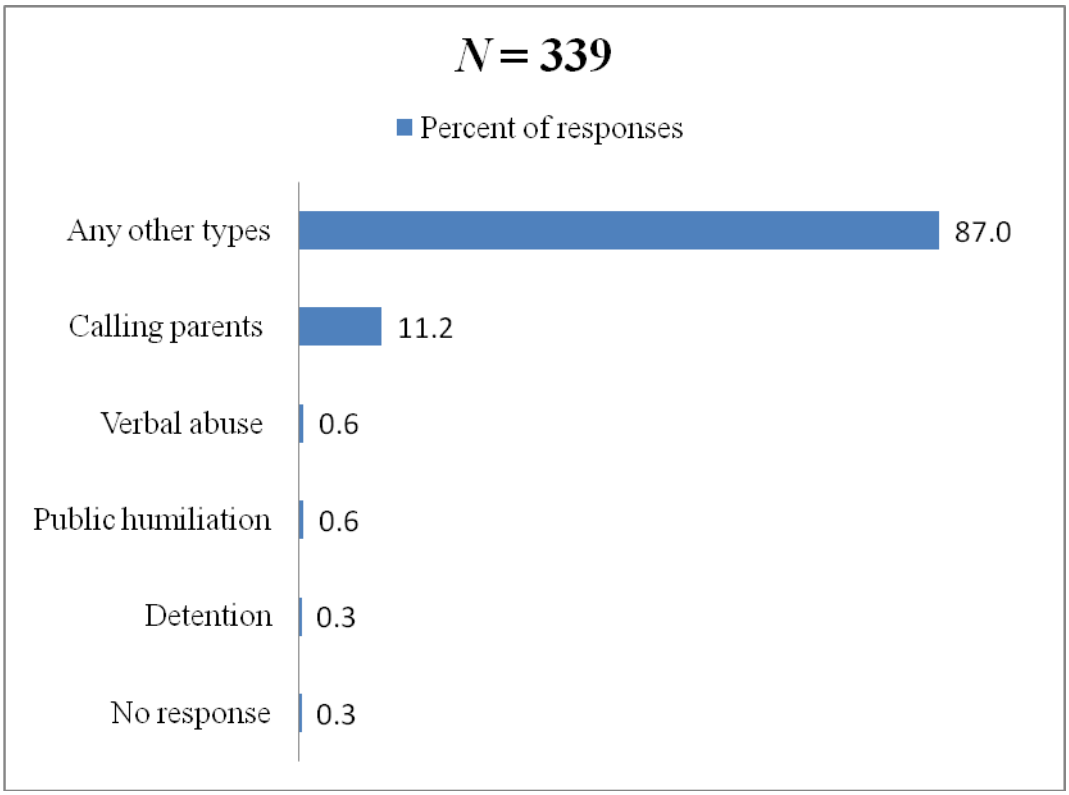


Figure 14: Common Punishments Given to Pupils

4.6.4.3 Other Common Punishments Given to Pupils.

To understand more about common punishments given to pupils, teachers were also asked a question to state other common punishments they give to pupils. Table 4.13 presents the results.

Results show that the other most common punishments include: cleaning the surrounding such as mopping toilets and classrooms (58.6%, n = 303), followed by sweeping the surrounding (21.9%, n = 113); and managing flowerbeds and lawns such as watering flowers (11.2%, n = 58).

Table 19: Other Common Punishments Given to Pupils

Common Punishment	Responses (%)
Cleaning surrounding	
Sweeping the surrounding	113 (21.9)
Mopping (toilets and classrooms)	303 (58.6)
Picking up litter	5 (1.0)
Slashing the surrounding	12 (2.3)
Clearing the surrounding	3 (0.6)
Bringing broomsticks	4 (0.8)
Digging rubbish pits	14 (2.7)
Managing flower beds and lawns	
Watering flowers	58 (11.2)
Making flower beds	1 (0.2)
Making lawns	1 (0.2)
Sending the child outside the classroom	1 (0.2)
Transfer	2 (0.4)
Total	**517 (**100.0)

CHAPTER 5

5.0 Discussions

5.1 Introduction

This chapter presents discussion of the study findings and its significance using a total of 300 primary school teachers from Zomba district. The results are discussed according to the study's objectives thus, (i) knowledge about mental health promotion among teachers, (ii) activities that are conducted by primary school teachers aiming at promoting mental health of the school children, (iii) mechanisms that teachers use to identify school children with mental health problems and (iv) factors that influence school childrens' mental health within the school environment

5.2 Teachers' Knowledge about Mental Health Promotion

The research findings suggest that primary school teachers do not have adequate knowledge about mental health, mental health promotion, signs of mental illness among school children and how to identify those school children with mental health problems. This was evidenced by teachers' responses in relation to definition of mental health where 35.4% (n = 106) strongly disagreed and 49.2% (n = 147) disagreed with the true definition of mental health. The results are in line with a quantitative study by Jimoh, (2014) in Lagos state, Nigeria, which state that there was deficiency of knowledge among teachers on ADHD (a mental health disorder among children). In addition to this, another cross sectional study by Sisask et al., (2014), in Europe found that teachers do not feel confident on mental health issues evidenced by only 11% of teachers who thought that they had enough knowledge about children's mental health and 86% wanted to know more about childrens' mental health. This relationship in study findings with other countries would suggest that child mental health promotion component is not

incorporated in the pre service training and even post training for primary school teachers. A quantitative study by Climie & Altomare, (2013) in Canada therefore, points out the need for incorporation of mental health issues in the pre training of teachers so that they gain knowledge and have the ability to identify and handle school children with mental health problems. When primary school teachers were asked on signs of mental illness, such as constant tiredness, self - blaming, withdrawal, poor concentration, lack of problem solving skills, irritability, over activity, and destructive behavior using a five-point scale, on average, they did not agree with such signs as indicators of mental illness. This implies that teachers lack knowledge on signs of mental illness thus leading to failure to attend to school children having mental health problems within the school environment. This would also mean that early diagnosis and intervention will not be done since such signs will be perceived as normal among primary school pupils. Therefore, mental health cannot be promoted in such an environment unless primary school teachers have undergone a special training on mental health and mental health promotion for school children. However, contrary to these findings, a quantitative study by Loades & Mastroyannopoulou, (2010) in United Kingdom indicates that teachers had the ability to recognize mental health problems among pupils especially the behavioral problems than the emotional problems. This is also supported by Fry (2015) in Canada through a qualitative study where teachers reported that some signs and symptoms of mental illness among children included: destructive behaviour, withdrawal, poor concentration and lack of communication. This difference in the research findings from other countries might be due to lack of child mental health training among Malawian primary school teachers and lack of multidisciplinary teams (social workers, psychologists and counselors) which work hand in hand with primary school teachers in other countries. Through such teams' knowledge and experience is shared therefore it

aids in the management of school children with mental health problems. In addition, this difference might be due to level of development, where the developed countries have adequate resources to support mental health promotion activities in primary schools. In Malawi, a quantitative study by Kutcher et al. (2015) which assessed knowledge and attitude of educators in the central region using African Guide Malawi version (AGMv) found that there was an improvement in both knowledge and attitude on mental health literacy after a three days training. This is an indication that training on mental health among primary school teachers is essential in the promotion of school child mental health. The study also found that proportion of teachers with knowledge about mental health promotion increased from 62.3% to 63.6% as experience increased from 6 months to 9 years, and sharply decreased to 54.8% as their experience further increases from 15 years and above. Increase in knowledge from 6 months to 9 years of work experience would mean that the more the primary school teacher interacts with school children, the more the teacher is exposed to mental health issues affecting school child. On the other hand, decrease in knowledge as the work experience increases would mean that those teachers with less years of work experience are still using the partial knowledge of psychology gained from the pre service training though not enough for the management of school children with mental health problems. However, in terms of location; whether rural or urban there was no significant difference in knowledge. This would be as a result of teachers having undergone the same pre service training.

5.3 Activities that are conducted by primary school teachers aiming at promoting mental health of the school children

Primary school teachers have a number of mental health promotion activities to carry out during the day as they interact with school children. These activities have been categorized as

academic related, non-academic related activities; times when teachers assist school children develop mental health skills and support given to school children with mental health problems.

5.3.1 Teachers' academic related activities.

Teaching styles practiced by teachers have a role to play in the promotion of mental health for the child. Primary school teachers in Zomba reported the following teaching styles used by them when teaching; children work together to build something, creative activities, storytelling, "acting games, "rhyming, and other teaching styles such as discussion, role play, brainstorming, question and answer, case studies, trial and error, demonstrations explanations etcetera. These teaching styles which allow school children to think and interact in groups assist them in development of problem solving skills which can be used when these children have encountered crises in life. In turn, these boost their resiliency and coping skills hence promoting mental health. Looking at the teaching styles which were mentioned by the study participants, they agree with the study results by Kay-Lambkin et al., (2007) who found that a teaching style that encourages the development of personal skills will be the most effective in mental health promotion of a child, for example, storytelling, rhyming and acting games, having the children work together to build something, and creative activities such as art, dance, and music. Despite all these teaching styles as mentioned by teachers in Zomba, it was found that school children mostly like teaching styles such as having them work together to build something, creative activities, role play, question and answers. Such teaching styles highlighted as mostly liked by pupils are the ones which require a child to think and actively participate hence they aid in the skills development and problem solving skills while at the same time promoting mental health of the child. The findings are also supported by Humayun (2016) who found that teachers reported using role plays in classrooms as a way of managing anxiety among school children. Provision of

positive feedback during classroom activities was reported as one of the activity done by teachers to promote mental health of a school child. These results may generate from psychology knowledge gained during the pre-teaching training.

5.3.2 Teachers' non-academic related activities.

For those teachers who reported to have knowledge about promoting mental health of the school child; they said this is done through ensuring good teacher – child relationship (15.7%) and encouraging child participation during physical activities (22%) and fostering anti-bullying behavioural activities (4%). These findings correspond with a quantitative study by Puolakka, Konu, Kiikkala, & Paavilainen, (2014) in Finland which found that relationship with friends and teachers were vital in the promotion of mental health for the children. In relation to this, a qualitative study by Jones, (2015) in New York also found that teachers play a great role in mental health promotion by modeling positive attitudes, creating social skills and wellness programs, fostering caring and trusting relationships with children and encouraging children to treat each other with compassion and respect. When there is good teacher-child relationship, a child feels a sense of belonging within the school environment hence this serves as protective factor from mental illness while at the same time promoting mental health. Poor relationships between teachers and school children are risk factors to mental illness and would lead to children feeling out of place while within the school environment making them feel stressed and depressed. The implication of good relationship, active participation and fostering of anti-bullying practices is that while academic life of a child is promoted at the same time mental health of the child is promoted. This is also supported by Fry (2015) where teachers reported having a responsibility to build authentic, meaningful relationships for mental health to be

promoted within the school environment. It only takes a mentally health child to concentrate well in the studies and succeed.

In Australia, Hunter Institute of Mental Health, (2010) support that children who participate in regular, safe physical activity are more likely to have positive mental health. Therefore, the more the school children participate in physical activities the more their mental health is promoted. All teachers who participated in this research study reported that they all have Parents Teachers Association (PTA) committee in their schools. Areas which are discussed during PTA meetings include: good teacher – child relationship; prevention of bullying between and among children; types of punishments given to school children; discuss good parent – child relationship; while others discuss good child – child relationship. Looking at such areas of discussion, majority of them are related to mental health promotion therefore, this indicates that the committees are able to discuss issues pertaining to mental health promotion of school children. In addition, through such forums, school child mental health promotion activities can be shared thus, sharing responsibilities among parents and teachers who are the main players in the promotion of child mental health. These results are supported by Australia primary school mental health initiative (2012) which states that for mental health to be comprehensively promoted in schools, there is need to work closely with the families and parents which can be achieved through Parent Teacher's Association(PTA) meetings. However, despite having PTAs in all the schools in Zomba district, some of the teachers do not know when PTA meetings are conducted and even the areas which are discussed are not known to them. These findings may be due to lack of willingness by other primary school teachers to participate, poor communication among leaders and lack of proper timing of PTA meetings (meetings done when most of the

teachers have lessons with school children). Thus, it can be difficult for them to take a leading role in mental health promotion of the school child.

5.3.3 Times when teachers assist school children develop mental health skills.

Upon asking teachers the times when they assist school children in developing mental health skills (essential life skills that support wellbeing and positive mental health), the mentioned times included during classroom lessons, during extracurricular activities and any other times when necessary. Similarly, a systematic review of 49 schools mental health studies by Franklin et al., (2012) in United States of America found that a good number of school mental health interventions were done in classrooms. This relation in study results might be due to nature of teaching work worldwide where most of the teaching work is done in classroom and at the same it is best time when teachers do interact with school children. These interventions done during classroom lessons do assist school children in their development of social emotional skills thus preparing them with social skills and emotional management skills which can be implemented in their daily life situation hence preventing them from mental health problems.

5.3.4 Support given to school children with mental health problems.

When teachers in Zomba were asked what they do when they have school children with mental health problems, responses had shown differences among teachers in a way that some reported to manage such cases (61.5%), some refer the child to their parents (25.5%), some do not know what to do with such challenging school children (6%) and others refer such children to hospital for proper assessment and management (2.4%). This is a clear indication that primary school teachers are taking part in the early identification and management of school children with mental health problems. However, for those teachers who reported not knowing what to do with school children with mental health problems require knowledge on mental health of a

school child so that they take part in early identification and management of mental health problems. These findings are supported by a cross sectional study by Khademi et al., (2016) in Iran which shows that when most teachers came across children with ADHD or Specific Learning Disability (SLD) they would refer them to their parents rather than specialists. Marshall et al., (2017) found that the most support given to children with mental health problems included educational psychological support (61%), counselling services (61%), cognitive behavioural therapy (CBT) (18%), and clinical psychological support (14%). In line with this, Humayun (2016) also found that teachers supported children with anxiety by teaching them how to recognize emotions and the physiological reactions that accompany emotions, facilitating role playing activities that aimed to foster emotional intelligence, social and emotional development by teaching self-regulation and incorporating yoga and mindfulness in the classroom. Such difference in findings is a result of having multidisciplinary teams in developed countries who work hand in hand with primary school teachers through mental health promotion activities.

Upon asking the primary school teachers on how they assist children in difficult moments such as hospitalization, separation of parents, accidents, death of parents and other difficult moments, the responses had shown that mostly they comfort such children (71%), leave such issues in the hands of parents or guardians (7.4%), escort the child to hospital (7.6), guidance and counseling (9.6%), and sometimes even visiting their homes (6.4%). These findings are in line with literature which has shown that during difficult moments teachers do support school children through guidance and counselling, they involve parents and even refer such children to hospitals even other professionals such as social workers for proper management (Marshall et al., 2017; Fry, 2015)

5.4 Mechanisms that Teachers use to Identify School Children with Mental Health Problems

A five point likert scale was used to assess how primary school teachers identify school children with mental health problems and the results had shown that some teachers strongly disagreed that they can identify children with mental health problems through universal screening of school children for the signs of mental disorders using Behavioral and Emotional Screening Systems (BESS) teacher form (29.1%), identification of protective and risk factors through meetings and case conferences (38.2%), reports from parents about changes noticed in their children's behavior (34.1%) during classroom lessons(36.5%), behavior problems manifested by children (36.1%), and close interaction with the children throughout the day (48.2%). These results would mean that teachers who disagreed with such ways of identifying mental health problems among school children were not sure on how they can identify children with mental health problems within the school environment. The other assumption pertaining to the results is that primary school teachers are not aware about these mechanisms due to lack of orientation and training. In addition, it might also be as a result of lack of implementation of such mechanisms among health workers who sometimes do conduct school health services in such primary schools. It would also imply that teachers are not aware of such ways of identifying mental health problems among school children and therefore, do not use them. Contrary to these findings, National Children's Bureau (2017) found that teachers were identifying mental health problems among pupils through ad hoc concerns raised by staff and this was done through staff observing the pupils and noticing any changes in behavior or mood, through parents and friends and sometimes self-referral by pupils themselves. This corresponds with the findings by Marshall, et al. (2017) who found that 82% of institutions used ad hoc identification as a

common method of identification, 76% used information from external services, 50% used previous schools administrative data collected for other purposes such as attendance or attainment record, 24% of institutions conducted targeted screening of pupils and 15% conducted universal screening of all pupils. Such findings from other countries other than Malawi which show that primary school teachers use a number of mechanisms in identification of mental health problems are as a result of mental health promotion programs within school premises. Through these programs, teachers are trained on how to identify mental health problems among school children. Fry, (2015) through a qualitative study in Canada also found that teachers reported that they actively observe the behaviour of school children so that early identification of mental health problems is done. Similarly, Ciampa, (2016) found that daily anecdotal record keeping by teachers were reported to aid in identifying those with mental health problems and parents were also a valuable source of information for their child.

A quantitative study by Headley & Campbell, (2011) in Queensland University of Technology complements that teachers through their understanding of the usual behavior for a particular child and their experience of a wide range of children's behaviour allowed them to identify non-normative behavior. Another quantitative study in Ethiopia which aimed at improving teachers' skill in early detection of mental illness among school children used a Strength and Difficulty Questionnaire as a way of identifying mental health problems (Desta et al., 2017). They further state that this is one of the most reliable and well established tools internationally. Contrary to this, none of the study participant ever mentioned of this as one of the mechanisms in identifying school children with mental health problems. This might be as a result of knowledge deficit on such screening tools as they are not taught both in pre teaching and on service trainings. Hoff et al., (2015) also support the use of Behavioral and Emotional

Screening System (BESS), Systematic Screening for Behavior Disorders (SSBD), Student Risk Screening Scale (SRSS), Strengths and Difficulties Questionnaire (SDQ), Emotional and Behavioral Screener (EBS) in early identification of mental health problems among school children. However, in this study no teacher had mentioned of such ways of identifying mental health problems among school children in the school environment. A qualitative study by Humayun (2016) in Canada found that teachers relied on personal experience with anxiety when recognizing it in children. Since these teachers had experienced anxiety in their childhood, this helped them to easily identify those school children having the same problem. The study among primary school teachers in Zomba district also found that parent involvement through reports from parents is one way of identifying school children with mental health problems (anxiety). This relates to literature which has shown that parents are one way a teacher can use to identify a school child with mental health problems.

5.5 Factors that Influence School Children's Mental Health within the School Environment

When teachers were asked to mention factors which they think can influence mental health of a school child within the school environment, the most common response were verbal bullying and the way a teacher manages the child who has misbehaved.

5.5.1 Bullying.

Teachers mentioned that bullying is common in the school premises which can have an impact on school child mental health. The findings can be as a result of teachers' knowledge on effects of bullying and corporal punishment on a school child. This relates to the findings by Grogan et al., (2015) in which it was discovered that one of the mental health risk factors in school was bullying and relationship difficulties. The results clearly show that such factors are common not only in Malawi but worldwide. Similarly, Australia primary school mental health

initiative (2012) found that Children who experience multiple stressors – such as family breakdown, lack of academic success, parental mental illness, bullying, parental substance abuse, living in poverty or experiencing racism – are more likely to develop emotional or behavioural problems that can continue to affect their mental health into adulthood. In support of the same findings, a cross sectional study in Uganda by Thumann et al., (2016) found that there was strong association between violence (bullying) from teachers and fellow school children with mental health problems. In this study, another factor which was discovered to have influence on mental health of the school child was the location type of school in which rural location had a high chance of influencing mental health of the child than urban location. These findings may be as a result of lack of both material and human resources in rural schools which would aid in mental health promotion activities. Schwartz et al. (2014) found that children in more positive school environments (for example, those with sufficient resources such as books and computers, and with teachers who were well respected by colleagues) had fewer social and emotional problems as well as fewer learning problems. This implies that children need adequate resources for them to develop mentally since it is through these resources they use for their academic achievement, which will also aid in mental health development.

However, contrary to this finding, Thumann et al., (2016) found that attending school in urban location was also associated with increased mental health difficulties compared to rural school. This difference would be as a result of advances in technology in developed countries where school children can be involved in cyber bullying (internet) and exposure to other drugs which have negative impact on mental health.

5.5.2 Punishments.

Primary school teachers in Zomba were also asked on how they manage school children who have misbehaved. The common punishments given to school children included; verbal abuse and public humiliation, calling parents/guardians, detention, sweeping, mopping, watering flowers and making flower beds. Verbal abuse and public humiliation are part of verbal bullying in the school environment. Therefore, this signifies that such type of punishments from teachers exposes the school children to mental health problems later in life. Climie and Altomare (2013) argue that school environment that is welcoming, open enough and understanding help children have a sense of belonging thus reducing risks of mental health problems among school population. Furthermore, this aids in the children coping skills in times of hardships. The more the school environment is friendly, accommodative, resourceful, welcoming and free from bullying, the more it promotes mental health of a school child.

5.6 Study Implication

This study has a number of implication to the body of knowledge in nursing, education, research and management. It has informed nursing that there is need for mental health promotion activities to be conducted in primary schools. These activities cannot be achieved by teachers alone but need health professionals to work as a team. In relation to education, the study has highlighted the need for mental health of a school child as child strives to achieve academic life. A child with poor mental health cannot excel academically. Therefore, the study has helped to let teachers acknowledge the importance of promoting mental health while they strive to meet their primary goal of academic excellence for the school child. The study results have identified the existing gaps in mental health pertaining to a school child. The identified gaps will aid in more research at national level hence meeting the needs of school child mental health. The results of

the study will aid in planning, policy development and implementation at management level/ national level.

5.7 Recommendations

Study findings have revealed that there is knowledge gap on mental health issues among primary school teachers. Therefore, there is need for primary school teacher trainings on mental health and mental health promotion to equip them with adequate knowledge on mental health so that they have capacity in identifying children with mental health problems for early interventions before the rise of complications. It is also evident from the findings that a number of activities are done by primary school teachers in mental health promotion such as allowing school children to participate in physical activities such netball football and teaching styles. However, primary school teachers are not aware that such activities have a positive impact on mental health of a child hence there is need for them to be oriented on activities that should be implemented with an aim of promoting mental health of a school child.

Identification of mental health problems among school children is one of the role primary school teachers have to play. Study findings have revealed that standard international assessment tools are not available in Malawian primary school which leads to failure to identify school children with mental health problems. Therefore, there is need for primary schools in Malawi to have such important assessment forms and let the primary school teachers be oriented on how to use such assessment tools. This will aid in addressing the unmet mental health needs of primary school children. The study results have also shown that one of the prominent factors affecting mental health of a school child is bullying. However, some teachers thought that there is no relationship between bullying and mental health of a school child as it has existed for long time. Therefore, there is need for primary school to have anti bullying plan to address mental health

problems among school children which would be as a result of bullying acts. Primary school teachers reported to have no policies on mental health in their schools. Policies are very important in each and every institution as they guide in the activities and interventions done in specific situations. Therefore, school mental health policies are recommended in all primary schools so that teachers use them when managing school children with mental health problems within the school environment.

Further research is paramount on the reason why rural schools are at increased risk of poor mental health as compared to urban schools and prevalence of mental health problems among school aged children. Data on prevalence of mental health problems among school children will form base line information of school children mental health status in Malawi. Based on study findings, there is also need for more research on mental health promotion in primary schools involving the school children and parents as they form part of school community. There is need for coordinated efforts between Ministry of Health and Education in addressing the gap identified in mental health promotion among school going children. This can be done through policy development at ministry level. Following policy development, awareness and orientation should be done in all primary schools to make sure that all the primary school teachers participate and implement the policy. In addition, through Ministry of Health, health professional need to be part of the multidisciplinary teams in primary schools in promoting mental health of school child.

5.8 Conclusion

The study results suggest that primary school teachers' in Zomba district have little knowledge about mental health in general and mental health promotion for school children. As such, the fulfillment of their role as one of the promoters of mental health of school children is

compromised. One of primary school teachers' roles in mental health promotion is to identify school children with mental health problems for early intervention which requires knowledge on mental health. Factors such as lack of pre service training and on service trainings on mental health promotion of school child and lack of adequate resources has affected the level of knowledge among primary school teachers.

The study has shown that primary school teachers' are unknowingly participating in the activities that promote mental health of the school child. Such activities include observation of child behaviour, the types of teaching styles they use, positive feedback during classroom lessons, ensuring good relationship between teachers and school children and encouraging school children in participating in physical activities. Despite having a number of mechanisms used in identifying mental health problems among school children, primary school teachers within Zomba district had shown that they only know few mechanisms such as observation and reports from parents. All the screening tools used globally are not known among primary school teachers. Lack of knowledge on such mechanisms of identifying mental health problems among school children can be due to the absence of child mental health promotion programme in Malawian schools which involves all teachers in the identification role. Therefore, primary school teachers in Zomba have difficulties in early identification of mental health problems among school children. This results into late diagnosis of mental health problems until adulthood.

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Appendices

Appendix 1: Consent form

I am Isabella Yangayiro, a postgraduate student pursuing Master of Science in Community health nursing at Kamuzu College of Nursing. Am conducting my study entitled **"exploring primary school teacher's role in the promotion of mental health for the school children"**. The purpose of the study is to know how primary teachers promote mental health of the schoolchildren. The results will help in coming up with school policies targeting mental health of the children since reproductive life in adulthood starts with good mental health in childhood.

You have been randomly selected to participate in the study among teachers who teach in primary schools. Your participation is very important but it should be from your free will, you can decide to participate or not. Questions will be asked in English. There are no risks to you in participating into this study. There are no benefits of any form attached to your participation in this study. Be assured that the information collected during this study will be handled with maturity such that no one will have access to it. No name will be used in the study hence numbers will be used for privacy and confidentiality. If you choose to participate, you are free to withdrawal at any point whenever you feel to do so.

For further information, questions and any concerns you are free to ask on the following:

COMREC Chairperson Phone number: 01671911

COMREC postal address at:

The Chairman

College of Medicine Research and Ethics Committee

Private Bag 360

Chichiri

Blantyre

Isabella Yangayiro (the researcher) phone number: 0995 678 990

Postal address:

University of Malawi

Kamuzu College of Nursing

Private bag 1

Lilongwe

If you agree to participate in this study, it will take us to approximately 40 minutes.

I have read and understood the aims and objectives of this study. Iam therefore, voluntarily choosing to participate.

Participants

Signature…….Date……

Researchers

Signature…….Date……

Appendix 2: Questionnaire

1. **Participant particulars**

Teacher code number…….

Sex of the teacher/participant

Female ☐

Male ☐

Name of school……

Which zone does this school belong?

Rural

Urban ☐

☐

Specify name of the zone…….

Age of the teacher

20-29 ☐

30-39 ☐

40-49 ☐

50 and above ☐

Teacher's work experience

6months-4 years ☐

5-9 years ☐

10-14 years ☐

15 years and above ☐

Qualifications of the teacher/participant

Certificate ☐

Diploma ☐

Degree ☐

Any other special training apart from education

Yes ☐

No ☐

If yes, specify…….

2. School profile

Number of teachers at school

Female teachers ☐

Male teachers ☐

Total number of pupils

Female pupils ☐

Male pupils ☐

Disaggregation of schoolchildren by age

6-12 years ☐

13-18 years ☐

Above 18 years ☐

Availability of school health committee

Yes ☐

No ☐

Availability of parent teachers association committee

Yes ☐

No ☐

Availability of school bullying prevention and intervention plan

Yes ☐

No ☐

3. Primary school teachers knowledge on mental health promotion concept for school children

In this section, the interviewer needs to tick/ indicate whether the interviewee agrees, strongly agree, disagrees, and strongly disagree to the question being asked.

Question	Agree	Strongly agree	**Not Sure**	Disagree	Strongly disagree
What is mental health i. state of wellbeing in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community					

ii. State in which an individual is not causing threats and other social problems in the community iii. don't know					
Do you think you usually know when pupils are feeling very sad, worrying a lot, or having trouble getting along with other children?					
What are common signs of mental illness you know among children? Withdrawal Poor concentration Constant tiredness in school Over activity Destructive behaviour Lack of problem solving skills Self-blaming Irritability					
Do you think you know enough about "child mental health"?					
Do you know how to promote school child mental health?					
If yes, how do you promote it?					

Providing positive feedback during classroom activities Good teacher-child relationship Encouraging child participation in physical activities Fostering anti-bullying behaviours Discouraging corporal punishment Any other…….					
Do you currently have any pupils with a "mental health problem"?					

4. Activities that are conducted by primary school teachers aiming at promoting mental health of school children

In this section, the interviewer needs to tick/ indicate whether the interviewee agrees, strongly agree, disagrees, and strongly disagree to the question being asked.

Question	Agree	Strongly agree	**Not sure**	Disagree	Strongly disagree
How many times do parents and teachers association/committee meet in an academic year Fortnight Monthly					

Once in academic school term Once in an academic year					
Are mental health issues ever discussed during parents' teachers' association meetings?					
When do teachers mostly develop childrens social emotional skills? During classroom lessons During free time for example physical exercises Any other time when necessary……					
What are the most teaching styles being practised by you? Storytelling Rhyming Acting games Having the children work together to build something Creative activities					

Any other teaching styles…….					
Which style do children like most? Storytelling Rhyming Acting games Having the children work together to build something Creative activities Any other style…….					
How do the teachers help children in difficult moments like hospitalization, loss of parents, separation of parents, accidents, injuries and many other difficult moments? Comfort them Left in the hands of parents and guardians Nothing is done					
What do you do when you have pupils with mental health problems? i. Manage them ii. Refer to parents iii. Refer to hospital for further investigations					

iv. Don't know what to do Never had the experience					
Do teachers take a leading role in prevention of bullying within the school premises					
Do you have any lessons on mental health such as causes of mental illness and prevention of mental illness					
Do you inform pupils where to seek help in times of worries, disappointments, and other crisis					
Are the pupils taught that teasing and bullying are wrong and unacceptable and if they experience or witness it, where to go for help					
Do you encourage pupils to celebrate their achievements, identify areas of strengths, areas of improvements, set high aspirations and goals					
Do you foster a conducive classroom environment where pupils are open enough to ask questions and explore their preconceptions about the topic					

5. Mechanisms that help teachers identify mental health problems affecting school children

In this section, the interviewer needs to tick/ indicate whether the interviewee agrees, strongly agree, disagrees, and strongly disagree to the question being asked.

Question	Agree	Strongly agree	**Not sure**	Disagree	Strongly disagree
How do you identify mental health problems among the school children? i. Through the behaviour problems manifested by children such as use of abusive language, distractive behaviour, sadness, aggressive behaviour within the school premises ii. During classroom lessons as the children may potray strange behaviours as children may become destructive in the classroom environment iii. Reports from parents about changes noticed in their childrens behaviour iv. Close interactions with the children throughout the day v. Universal screening school children for the signs of mental disorders through					

Behavioural and Emotional Screening System(BESS) Teacher form vi. Identification of protective factors and risk factors through meetings or case conferences vii. Using strength and difficulty questionnaire viii. Don't know any mechanism					

6. Factors which influence childrens' mental health within the school environment

In this section, the interviewer needs to tick/ indicate whether the interviewee agrees, strongly agree, disagrees, and strongly disagree to the question being asked.

Question	Agree	Strongly agree	**Not sure**	Disagree	Strongly disagree
Do you enjoy working at this school?					
If yes, why do you enjoy working at this school? Good leadership Good communication among teachers Enjoy the school environment Like the teaching profession Any other reasons……..					

If no, why don't you enjoy working at this school? Bad leadership Poor communication among teachers Does not like the school environment Does not like the teaching profession Any other reasons……					
How is the relationship between teachers and children? Good Somehow good Bad					
Are conflicts between staff members well managed in your school?					
Are conflicts between pupils well managed in your school?					
Do you feel your work is meaningful?					
Do you want to know more about "child mental health"?'					
Do you feel you can take part in the school's development?					
Do you get support in your work from other					

teachers?					
Do you feel important as a person at this school?					
Is the co-operation with parents effective?					
Does the school have a health policy?					
If the policy is available, does the school health policy include mental health issues?					
How would you feel to have a mentally disturbed pupil in your classroom? i. Keep the pupil in the classroom ii. Let the pupil be removed from the classroom Other……..					
Does the curriculum have mental health issues?					
What type of extracurricular activities take place at this school? Arts Sports Music Drama Others, specify…….					

Do all children participate in these extracurricular?					
If no, why do others not participate? Lack of willingness Shyness Other reasons……					
Does the school have sufficient books, computers, and any other resources for their education?					
Does bullying occur at this school?					
Where and when does bullying often occur? i. Classroom ii. During lessons by fellow children or teachers iii. Play ground iv. On the way to and from school v. During break time vi. Don't know vii. Other…… ……					
Between male and female school children, who are most often being bullied on? i. Female pupils					

ii. Male pupils iii. Both iv. Don't know What is the most common type of bullying? i. Physical i.e. beating, taking away someone's food/property ii. Verbal i.e. abusive language iii. Social iv. Electronic v. Don't know vi. Other, specify…… …… ……..					
What do you think are the common risk factors for mental health problems among pupils at this school? i. Disengagement ii. Bullying and relationship difficulties iii. Violence/aggression iv. Poor relationship between teachers and pupils v. Poor connection between family and school vi. Harsh and inconsistent discipline vii. Poor coping with the changes coming					

due to growing up viii. Lack of school materials ix. Home economic hardships x. Others…….. xi. Don't know					
How do you manage pupils who have misbehaved? i. Counselling ii. Disciplinary action iii. Punishment What are the common punishments given to school children? • spanking (usually with an object such as a paddle or stick) • slapping (on the face or hands) • pinching (anywhere on the body) • suspension • Detention • public humiliation (standing in front of class or sitting on the floor in front of the head teachers office) • Calling parents • Verbal abuse • Any other types…….....					

Appendix 3: COMREC Certificate of Approval

CERTIFICATE OF ETHICS APPROVAL

This is to certify that the College of Medicine Research and Ethics Committee (COMREC) has reviewed and approved a study entitled:

P.04/17/2143 - Exploring primary school teachers role in the promotion of mental health of school children in Zomba district version 1 dated 6 April 2017 by Isabella Yangayiro

On 24-May-17

As you proceed with the implementation of your study, we would like you to adhere to international ethical guidelines, national guidelines and all requirements by COMREC as indicated on the next page

Dr. YB. Mlombe - Chairperson (COMREC)

26-May-17

Date

REQUIREMENTS FOR ALL COMREC APPROVED RESEARCH PROTOCOLS

1. Pay the research overhead fees as required by the College of Medicine for all approved studies.

2. You should note that the COMREC Sub-Committee on Research Participants' Safety will monitor the conduct of the approved protocol and any deviation from the approved protocol may result in your study being stopped.

3. You will provide an interim report in the course of the study and an end of study report.

4. All COMREC approvals of new applications and progress reports are valid for one year only. Therefore all approved studies running for more than one year are subject to continuing review annually. You are required to submit a progress report to COMREC within 30-60 days before the expiration date. Your current expiration date is 24-May-18. Studies shall be considered lapsed and inactive if continuing review application is not received one month after the expiry of the previous approval. In that case, all study related operations should cease immediately except those that are necessary for the welfare of subjects.

5. All investigators who are Medical Practitioners must be fully registered with the Medical Council of Malawi.

Appendix 4: Permission Letter to Conduct Study in Zomba District

Ref. No. IN/2/14

07th February, 2017

FROM : THE SECRETARY FOR EDUCATION, SCIENCE AND TECHNOLOGY, PRIVATE BAG 328, LILONGWE 3.

TO : THE DISTRICT EDUCATION MANAGER, (ZOMBA URBAN). P. O. BOX 311, ZOMBA.

THE DISTRICT EDUCATION MANAGER (ZOMBA RURAL) P. O. BOX 311, ZOMBA.

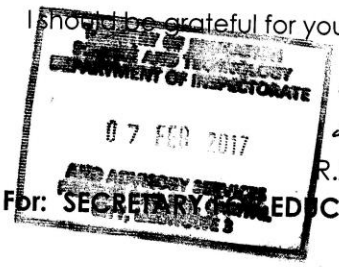
PERMISSION TO ALLOW MS ISABELLA YANGAYIRO TO CONDUCT A RESEARCH STUDY IN SELECTED SCHOOLS IN ZOMBA DISTRICT

I write to inform you that the Ministry has allowed Ms Isabella Yangayiro to conduct research in selected schools in your district.

Ms Yangayiro is a student of the University of Malawi, Kamuzu College of Nursing. She is currently studying for her Master's degree in Community health. As part of her study, Ms Yangayiro would like to conduct a research study with some teachers in selected schools of Zomba district. Her research is on **"Exploring role of Primary school teachers in the promotion of mental health of school Children in both rural and urban schools".**

The Ministry of Education has granted her permission to carry out her study in the selected schools.

I should be grateful for your assistance rendered to her.



R.Z.G. Agabu

For: SECRETARY FOR EDUCATION, SCIENCE AND TECHNOLOGY

Appendix 5: Permission Letter from DEM to Conduct Study

From : District Education Manager,
Zomba Rural,
P.O. Box 311,
ZOMBA.

To : WHOM IT MAY CONCERN

INTRODUCTORY LETTER

Permission has been granted to Ms Isabella Yangairo to conduct research in Community Health at your school.

Please assist her accordingly.

Tadala Magereta

For : **DISTRICT EDUCATION MANAGER- ZOMBA RURAL**