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馬拉威小學教師對學生心理健康問題的覺察和感知

Primary School Teachers' Recognition and Perceptions of
School Children's Mental Health Problems in Malawi

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本論文係 田楚秀 Melissa Saji Tien (學號 R10853001) 在國立臺灣大學全球衛生碩士學位學程完成之碩士學位論文，於民國 113 年 07 月 24 日承下列考試委員審查通過及口試及格，特此證明。

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Abstract (Chinese)

背景

馬拉威年輕人自殺率上升以及憂鬱症的普遍存在，凸顯了面對心理健康挑戰的必要性。兒童時期的心理健康問題往往在成年後表現出來，許多個案未能得到適當處遇，造成長期的影響。本研究試圖填補馬拉威兒童和青少年心理健康研究的空白，將重點發在教師身上，因為他們在心理健康資源嚴重不足的國家中扮演關鍵角色。鑑於教師與學生相處時間長與對學生的影響力，因此了解教師對學生心理健康需求的知識水平是很重要的。

目標

本研究旨在探討馬拉威在職和職前教師對學生心理健康問題的覺察與感知，以及相關因素。本研究並調查了老師對兒童心理健康問題成因的認知，以及學校心理健康資源的可及性和重要性。

方法

本研究為橫斷性調查，於 2024 年 5 月至 2024 年 6 月在馬拉威對 974 名小學教師和教師學員進行紙筆問卷調查。問卷包括四個部分：社會人口學特徵、對立反抗症（ODD）和分離焦慮症（SAD）兒童的案例故事、兒童心理健康問題嚴重程度認知（使用改編的長處與困難問卷量表，SDQ），對兒童心理健康問題的歸因，與所感知的資源可及性和重要性。使用邏輯斯迴歸來分析覺察 ODD 和 SAD 的相關因素，兒童心理健康問題的歸因，以及將有兒童心理健康問題的學生轉介給非醫療服務提供者的情況。使用線性迴歸分析教師對兒童心理健康問題嚴重性感知的相關因素。

結果

雖然分別有 81.7%和 71.6%的教師報告曾接觸過患有心理疾病和障礙的個人和學生，但只有 23.2%的教師報告曾接受過心理健康培訓。大多數教師認識到案例中的兒童有 ODD（96.3%）和 SAD（88.6%）的問題，這與之前接觸過他人心理障礙的經歷和教學經驗相關。教師對外化障礙的認知嚴重程度高於內化障礙，且認知嚴重程度與某些因素相關。遺傳（70.9%）和物質濫用（70.3%）最常被認為是兒童心理健康問題的原因。宗教和種族因素則與認為兒童心理健康問題是被附身或與靈性因素有關。多數教師認為應將兒童心理健康問題轉介給心理健康專業人士（79.4%）和心理諮商師（72.3%），少數教師則認為可轉介給教堂（29.1%）

和傳統治療師（7.3%），後兩者與年齡和宗教相關。學校心理健康服務被大多數人認為重要，但一些服務被認為不常見，例如，只有 29.6%的教師報告學校內有學生心理健康問題的篩檢服務。

結論

這些發現強調了加強心理健康培訓和資源的重要性，以支持馬拉威小學教師應對學生的心理健康問題。

關鍵詞

心理健康、感知、覺察、心理健康識能、兒童心理健康問題、小學教師、學生

Abstract (English)

Background

The escalating youth suicide rates and prevalence of depression in Malawi underscore the imperative to address mental health challenges. Poor mental health during childhood often manifests in later life, with many cases going unaddressed, exacerbating long-term effects. This study addressed the research gap on child and adolescent mental health in Malawi, focusing on teachers—key figures in a country with severe mental health resource constraints. Recognizing teachers as the primary influencers due to their extensive time spent with students, it is important to better understand teachers' literacy level regarding students' mental health needs.

Objectives

This study aimed to explore the recognition and perceptions of students' mental health problems and the associated factors in in-service and pre-service teachers in Malawi. It also investigates perceived causes of child mental health problems and the availability and perceived importance of school mental health resources.

Methods

The study employed a cross-sectional survey administered via pen-and-paper questionnaires in English to 974 primary school teachers and teacher trainees in Malawi from May 2024 to June 2024. The survey questionnaire, comprising four sections—socio-demographic inquiries, vignettes of children with Oppositional Defiant Disorder (ODD) and Separation Anxiety Disorder (SAD), perceived severity of child mental health problems (based on the adapted version of the Strengths and Difficulties Questionnaire Scale, SDQ), and perceived causes, resource accessibility and significance. Logistic regression was used to investigate the factors associated with problem recognition of ODD and SAD symptoms, and the attribution of causes of child



mental health problems (CMHPs) and the referral of students with CMHPs to non-medical service providers. Linear regression was used to examine factors linked to teachers' perceptions of CMHP severity.



Results

While 81.7% and 71.6% of teachers reported exposure to individuals and students with mental illness and disorders, respectively, only 23.2% reported ever receiving mental health training. The majority of teachers recognized children with ODD (96.3%) and SAD (88.6%) in the vignettes having a problem, and the recognition was associated with previous experience of exposure to others' mental disorders and teaching experience. Teachers demonstrated greater perceived severity for externalizing disorders compared to internalizing ones, and perceived severity was associated with certain factors. Heredity (70.9%) and substance abuse (70.3%) were most commonly cited as the causes of child mental health issues. Religion and ethnicity were associated with the belief that CMHPs were caused by being possessed / spiritual factors. There was a strong preference for referral of CMHPs to mental health professionals (79.4%) and counselors (72.3%). Some considered referrals to churches (29.1%) and traditional healers (7.3%), and such preference was associated with age and religion. School mental health services were mostly recognized as important but some were perceived to be not commonly available, e.g., only 29.6% of teachers reported that school-wide screening of mental health problems in students was available in their schools.

Conclusion

These findings underscore the critical need for enhanced mental health training and resources to support teachers in managing mental health challenges within the primary educational environment in Malawi.

Keywords

Mental health, perceptions, recognition, mental health literacy, children mental
health problems, primary teacher, students

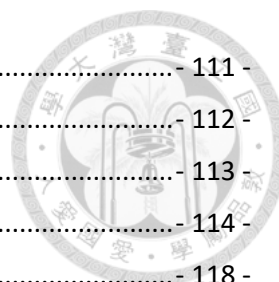


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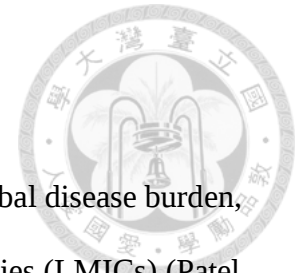
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Introduction

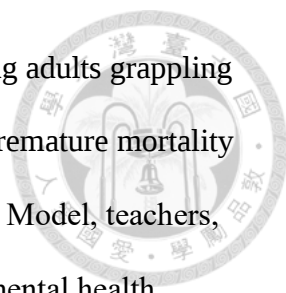


Neuropsychiatric conditions constitute nearly 14% of the global disease burden, with more than 70% concentrated in low- and middle-income countries (LMICs) (Patel et al., 2014; Prince et al., 2007, Ferrari et al., 2024). Mental disorders and substance abuse account for a quarter of disability-adjusted life years (DALYs) borne by the population under the age of 24 (GBD, 2021). Approximately 75% of mental disorders diagnosed in adulthood have onset before the age of 24 and 50% before the age of 14 (Kessler et al., 2005; NAMI, 2024). A large-scale study on epidemiological meta-analysis revealed that the global onset of mental disorders was also one-third of individuals before age 14, almost half before 18, and a high peak above the age of 15 (Solmi et al., 2022). This emphasizes the pressing need for targeted interventions as most children and young people do not have access to mental health care. According to the GBD 2021, mental disorders significantly increased after the COVID-19 pandemic (Ferrari et al., 2024, Rao and Rao, 2021).

In LMICs, where the majority of the population is below the age of 25 (Kutcher et al., 2015; Udedi, 2014; Patel et al., 2007), there is a pressing need for targeted interventions. However, these figures also underestimate the true burden of disease because of the lack of underdiagnosing and reporting, which are intrinsically linked to failing families (Patel et al., 2007). The World Health Assembly, in alignment with the WHO's comprehensive Mental Health Action Plan 2013-2020, extended until 2030 (WHO, 2021), recognizes the gravity of the situation on a global scale. Disparities in mental health resources are evident, with 11.9 psychiatrists per 100,000 population in high-income countries (HICs) compared to less than 0.1 per 100,000 in low-income countries (LICs) (WHO ATLAS, 2017). In sub-Saharan Africa, the burden of common mental health disorders has doubled among young adults and adolescents in the past 30

years (Gouda et al., 2019). Notably, research on adolescent mental health in sub-Saharan Africa, particularly in Malawi, is scarce (Kutcher et al., 2019).

While the importance of addressing mental health problems in young people globally is well-documented (Kutcher et al., 2015; Evans et al., 2020; Fazel et al., 2014; Kerebih et al., 2016), the focus in low- to middle-income countries remains insufficient. The awareness of the high prevalence of youth mental health problems, coupled with low treatment rates and the substantial costs associated with untreated mental disorders, necessitates urgent attention (Fusar-Poli, 2019). Poor mental health is intricately linked to health and developmental concerns in vulnerable populations, leading to lower educational achievements, substance abuse, and violence (Patton et al., 2016). The dynamic brain development during adolescence, shaped by social interactions, plays a pivotal role in determining an individual's capabilities in adulthood (Blakemore and Mills, 2014). There is also minimal investment in mental health, as per capita, 90 developing countries received either 0 or less than US\$0.01 average in developmental assistance on mental health (Lu et al., 2018). Most developmental assistance only focused on temporary or short-term humanitarian assistance through NGOs for children and adolescents in conflicts or disasters, so little is distributed to the public health sector delivered to community health workers (Lu et al., 2018). Due to the lack of monetary commitment being the major barrier in improving access to mental health intervention, developing countries rely heavily on developmental assistance from high-income countries or foundations (Lu et al., 2018). According to the Creditor Reporting System, global development assistance for mental health (DAMH), which reports public data on government, multilateral organizations, and private donors, indicates that mental health is being ignored as less than 1% of DAMH is being channeled (Gilbert et al., 2015).



Presently, society is witnessing the largest generation of young adults grappling with mental health disorders, resulting in significant morbidity and premature mortality (Patton et al., 2016). Adopting Bronfenbrenner's Ecological Systems Model, teachers, as key adults in a child's microsystem, directly influence children's mental health (Loades & Mastroyannopoullo, 2010). It is imperative for teachers to understand and contribute to the detection and referral of children's mental health problems. Task-sharing is a community-based approach that can be effectively implemented through laypersons with proper training. It is estimated that every US\$1 million invested in effective treatment towards mental health would create 350-700 million extra healthy life years (Hyman et al., 2006).

The escalating incidence of youth suicides in Malawi, coupled with depression emerging as the primary cause of illness and disability among global youth, underscores the urgency of addressing mental health challenges in young people (Udedi, 2014; Banda et al., 2021). However, many Malawians attribute mental health disorders to substance abuse or spiritual possession, fostering stigma and discrimination (Kutcher et al., 2015; Kavalo et al., 2014). Teachers could serve as gatekeepers in the early identification and referral of children with mental health problems; however, past research into primary school teachers' attitudes and perceptions of students' mental health problems is lacking in Malawi (Bandawe, 2021; Kutcher et al., 2015; Evans et al., 2021). This study aims to fill this critical gap in understanding and advocate for the integration of mental health in developing countries' public health sectors, as public health sectors deliver basic health services to the most vulnerable populations.

Though students may not always view teachers as the first line for help, teachers can still play an important role as a source of mental health information and social support (Jorm et al., 2010, Oshodi et al., 2013). Teachers are also at an advantage as

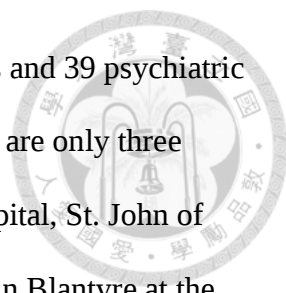
they are less biased than family members and can interpret poorer outcomes as they interact with students daily in the classroom noticing behaviour, mood, or academic performance (Gunawardena et al., 2024). While schools are traditionally seen as primarily academic institutions, they are also extremely important in nurturing students' mental health and well-being (Mahoney et al., 2020). Children with mental health challenges face numerous issues such as failure, absenteeism, disruptive classroom behavior, and expulsions from school (Ferguson and Wolkow, 2012).

Schools provide an important opportunity to integrate treatment for mental health problems with a system of care that is available as they can promote and protect good mental health and well-being (Fazel et al., 2014; Hozler et al., 2021). Task-sharing mental health services is acceptable and feasible in low- and middle-income countries but only if there is an increased number of human resources and better access to resources, structured supervision on a multilateral scale, and adequate training and compensation for those involved (Mendenhall et al., 2024). However, interventions of training are challenging as they face many constraints due to the large numbers of students, unpredictable schedules, and lack of resources (Eustache et al., 2017). Research also shows that social support plays an important key role in promoting adolescents' psychological well-being, with teacher social support associated with better psychological well-being for all students (Guo et al., 2018).

Background

Malawi's Healthcare System

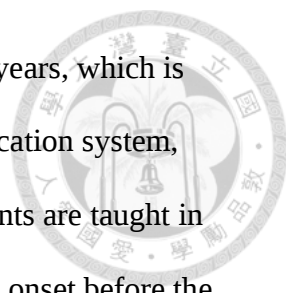
Malawi's public health system adheres to a three-tier structure of medical facilities, with the national health budget primarily directing resources towards the upper echelons of health services (Udedi, 2016). According to a Ministry of Health



report, the country currently employs only two full-time psychiatrists and 39 psychiatric nurses within mental hospitals (Udedi, 2014; Bandawe, 2021). There are only three specialized mental health institutions in Malawi: Zomba Mental Hospital, St. John of God in Lilongwe and Mzuzu, and Queen Elizabeth Central Hospital in Blantyre at the tertiary level (Kokota et al., 2023). As of 2020, there are only three psychiatrists, three clinical psychologists, one occupational therapist, and seven social workers for public health (Kokota et al., 2023). At the primary level, general nurses and health workers serve as the first point of care, while the secondary level should have varying psychiatric nurses, clinical officers, and other workers (Kokota et al., 2023). Consequently, there are notably low detection rates for mental disorders among primary healthcare clinicians, leading to many cases being misdiagnosed as physical disorders (Udedi, 2014; Kutcher et al., 2015).

Education in Malawi

As of the 2022 Education Statistics, as reported by the Ministry of Education, Malawi boasts a total of 77,755 primary school teachers, with an additional 7,043 in the private sector—a significant increase from 2018, attributed to rising enrollment (MOE, 2022). The distribution includes 2,103 teachers in Mzimba North, 2,554 in Mzimba South, and 1,091 in Mzuzu City. In Lilongwe City, encompassing both Lilongwe R East and Lilongwe R West, the teacher count stands at 10,117 (MOE, 2022). Despite these educational strides, Malawi remains one of the world's poorest countries, ranking 169 out of 189 on the 2022 UNDP Human Development Index. Approximately 50.7% of the population lives below the poverty line, surviving on less than \$1.25 a day at international prices (World Bank, 2014).

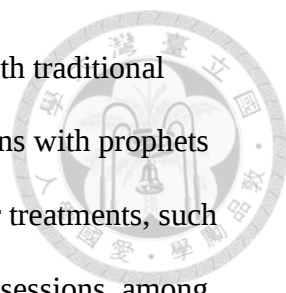


Primary education begins at the age of six and lasts for eight years, which is compulsory and free to all citizens. Malawi operates on an 8-4-4 education system, meaning that the first eight years of education are compulsory. Students are taught in local Chichewa and English. Given that most mental health disorders onset before the age of 25, schools are arguably ideal settings for implementing mental health promotional activities and interventions (Patel et al., 2014; Kieling et al., 2011). Examining Malawi's global burden of disease database, conduct disorder and anxiety disorders emerge as the leading contributors to the disease burden among children aged 5-14. Therefore, school teachers could contribute to the identification and appropriate management of these conditions in students. However, in addition to the scarcity of services for mental disorders, poor understanding of mental health and mental illness persists in Malawi (Kutcher et al., 2015; Maclachlan et al., 1995; Crabb et al., 2012).

The total primary enrollment according to the Malawian 2023 education statistics report is 5,298,456 students. The larger proportion of primary schools are public, representing 85% of total schools, followed by private schools, which represent 15% (MOE, 2023). Institutions are also increasing, which supports the importance of increased training (MOE, 2023). According to the National Standards for teacher education, all teachers must graduate from a secondary school, attain a MSCE, and receive a training certificate after their two-year program (MOE Science and Technology, 2017).

Cultural Beliefs in Malawi

Malawi exhibits a robust cultural belief system concerning mental disorders, particularly shaped by social and cultural influences (Wright & Maliwichi-Seganimalunje, 2020). These perceptions are further influenced by religion and



indigenous medicine, including herbal remedies and consultations with traditional healers (Steinforth, 2009). Healing practices may involve consultations with prophets from churches or traditional healers to identify causes and administer treatments, such as herbal remedies, observation rituals, prayer, or expelling spirit possessions, among others (Steinforth, 2009; Simwaka et al., 2007). Approximately 80% of Malawians seek help from traditional healers, as highlighted by a Ministry of Health report in 2005. In a study done in Blantyre on registered healers, there were approximately 45,000, and another study showed that of the 1,566 healers, they would see approximately 44,109 patients (Kokota et al., 2023).

Mental Health Literacy

The World Health Organization (WHO) defines health literacy as an empowering tool that enables individuals to engage in their own knowledge, motivation, and competencies to comprehend, access, and evaluate health information (WHO, 2021). This, in turn, facilitates informed decision-making in everyday life concerning healthcare, disease prevention, and health promotion to maintain or enhance the quality of life throughout the lifespan (WHO, 2021). Jorm underscores the cognitive organization of mental health literacy, highlighting a continuum between public and professional beliefs about mental health disorders (1997). This spectrum ranges from lay beliefs to professional knowledge (Jorm et al., 1997). Around the world, interventions are rapidly advancing our understanding of the critical role of health literacy (Ma et al., 2023; Johnson et al., 2023). While mental health literacy has been recognized as essential in global research, it has yet to take center stage in low- and middle-income countries.

More specifically, mental health literacy (MHL) encompasses knowledge and attitudes pertaining to mental health that contribute to the recognition, management, and prevention of mental health issues (Jorm et al., 1997; Ma et al., 2023; Johnson et al., 2023). While initially focusing primarily on knowledge of mental illness and risk factors, mental health literacy has broadened its scope to include prevention and health-promoting attitudes (O'Connor and Casey, 2015).

Literature Review

A cross-sectional survey conducted on 2,000 adolescents in Malawi regarding mental disorders revealed that 95% of respondents attributed mental disorders to substance abuse, with 82.8% linking them to spirit possession and 76.1% to psychological trauma (Kutcher et al., 2015). Discrimination and maltreatment towards individuals with mental disorders are prevalent in Malawi (Crabb et al., 2012). This underscores a significant opportunity to enhance mental health literacy in Malawi. In 2015, a Malawian educator assessment of student mental health outcomes was conducted as a midterm evaluation of a larger youth depression intervention project by the Ministry of Education and the Guidance, Counseling, and Youth Development Centre of Africa (GCYDCA) (Kutcher et al., 2015). This study, supported by the Canadian College of Family Physicians, conducted research on thirty-two teachers who self-reported positive improvements in students when Mental Health Literacy programs were delivered (Kutcher et al., 2015). The results found that 81.3% reported a positive change in the student's attitude and 96.9% in behavioural change (Kutcher et al., 2015). In addition, 62.5% of educators personally sought mental health care and 93.8% were encouraged to seek mental health care after the intervention. In a recent smaller-scale study by Evans et al. in Blantyre in 2020 found that teachers benefited from mental

health training, building on their existing knowledge. They expressed a need for further opportunities for training and consultation, as they recognized their limitations in accessing mental health care or supporting children whose needs exceeded the capacity of school teachers alone. While previous global mental health initiatives, including those in Malawi, have assumed a baseline knowledge among teachers, our study sought to comprehensively understand their attitudes, perceptions, and mental health literacy.

Mental health training for teachers in a study conducted in Haiti showed that knowledge and attitudes significantly improved, and the training was deemed feasible and acceptable (Eustache et al., 2017). Most teachers showed significant interest and enthusiasm for the training (Eustache et al., 2017). Teachers in the post-test were able to recognize, respond, and refer students with mental health needs, as well as build resilience for mental health (Eustache et al., 2017; Ojio et al., 2015). Recommendations included logistic support, support within school leadership, and longer training durations (Eustache et al., 2017). In a mental health intervention study conducted in India by the SHAPE program, involving teachers and peers in training lay school health counselors, the intervention was successful as children learned about school counseling and its feasibility, with students self-referring over time (Rajmaran et al., 2012). A study in Tokyo with teachers directly engaging students showed significant improvements in mental health knowledge and help-seeking behaviors after just two 50-minute lectures (Ojio et al., 2015). Mental health programs delivered by teachers are essential as they regularly observe students, consider their individual situations, and students are more willing to seek help within the school (Ojio et al., 2015).

A mental health literacy study conducted in Ireland showed that most participants were able to recognize a learner's internalizing disorder, such as anxiety and depression (Chorcora and Swords, 2022). After multiple regressions, females who

were exposed to mental illness significantly showed higher concern for children with mental illness (Chorcora and Swords, 2022). Concern and confidence in one's ability to help students in need were significantly associated with the intention to offer support (Chorcora and Swords, 2022). More years of teaching experience were associated with less intention to provide help (Chorcora and Swords, 2022).

Systematic reviews have shown the effectiveness of school-based interventions in preventing adolescent mental health problems (Goodwin et al., 2021; Bidik and Sisman, 2021; Ma et al., 2022; Hunt et al., 2014). In high-income countries such as the UK, USA, and Australia, it is perceived that teachers lack adequate training and confidence, experience, information, and training to address mental health issues within their classrooms (Splett et al., 2019; Rothi et al., 2008; Graham et al., 2011; Reinke et al., 2011). A study in Canada showed that leading health promotion programs increased awareness and promotion of mental health (Berg et al., 2018). Another study on pre-service Primary School Teachers in Canada proved that educators identified substance use and abuse as explanations for depression (Whitley and Gooderham, 2016). It is common for educators to notice and subsequently refer students with externalizing behaviors to the most relevant health authorities (Whitley and Gooderham, 2016).

In countries with more resources, nurses were recommended to provide mental health intervention programs (Bidik and Sisman, 2021). However, in scenarios where healthcare infrastructures are lacking, teachers can support children the best. Loades and Mastroyannopoulos (2010) reported that primary school teachers' teaching experience and previous exposure contribute to the variance among students. However, teaching experience or exposure did not make significant contributions (Loades and Mastroyannopoulos, 2010). Research also shows that females have higher mental health literacy compared to their male counterparts (Byrne et al., 2015). Adolescents

themselves understand the importance of showing concern when surrounded by individuals and friends in distress but do not recognize the need to engage with adults (Byrne et al., 2015). Teachers have reported several challenges when implementing mental health programs, such as lack of time, insufficient training, and mixed views on supporting children.

Research Significance

In April 2020, there was an increase in policy support for improving mental health services as the policy seeks to further enhance access to integrated, high-quality mental health services from the Ministry of Health. This policy identifies mental health as a priority for all Malawians, as emphasized by the Government of Malawi (UNICEF, 2024). Several mental health capacity-building projects target healthcare workers, including the implementation of the WHO's Mental Health Gap Action Program and the publication of the Malawi Quick Guide to Mental Health in 2020 (Kokota et al., 2023). Early detection of mental health problems in children plays a pivotal role in shaping their future outcomes, often occurring before they see healthcare professionals. Consequently, recognizing teachers as primary resources for early identification and support of children becomes increasingly apparent.

Additionally, the United Nations and the Ministry of Health in Malawi, with SDG3, have escalated efforts to promote mental health within Malawi's Health Sector Strategy Plan III 2023-2030. The Ministry of Education's National Education Sector Investment Plan 2020-2030 (NESIP) has proposed methods to create more teaching colleges to address the teacher shortage in Malawi, making it essential to incorporate mental health training.

The global spotlight on school-based promotion and prevention of child and adolescent mental health has led to interventions even in countries like Malawi. All 194



member states of the World Health Organization (WHO) have committed to the comprehensive mental health action plan spanning from 2013 to 2030, endorsing global targets for transforming mental health (WHO). In tandem, UNICEF has launched the international campaign #OnMyMind, advocating that "every child deserves to grow up in a loving, nurturing, and safe environment." This initiative encourages investment in positive mental health. In Malawi, UNICEF's youth representatives actively promote mental health for children and youth by urging individuals to text "TIPS" to 1177 on Airtel or TNM to access mental health information in both Chichewa and English (UNICEF). While the WHO's 2018 Malawi Adolescent Mental Health report acknowledges the mental health challenges faced by young Malawians, the absence of comprehensive reporting underscores the need for further attention (WHO). Despite these efforts, there is still a noticeable gap as no current study comprehensively assesses the perceptions, attitudes, and mental health literacy of teachers on a large scale.

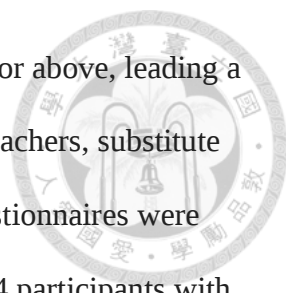
Research Aims

1. Explore mental health literacy in in-service and pre-service teachers regarding students with mental health illnesses
2. Investigate factors influencing accurate recognition of student mental health problems
3. Investigate perceived causes of mental illness and the availability and perceived importance of school mental health service resources.

Methodology

Participants

This is a cross-sectional survey using pen-and-paper questionnaires conducted in Lilongwe District and Mzimba North District, Malawi, from May 2024 to June 2024.



Eligible participants included primary school teachers aged 18 years or above, leading a mainstream class, or student teachers aged 18 years or above. Headteachers, substitute teachers, and classroom aides were not eligible. A total of 1,130 questionnaires were distributed, of which 72 were not returned. After further excluding 84 participants with missing information on variables included in the analysis, the final sample included 974 participants.

Sampling Strategy and Location

The sampling process employed purposive sampling in two stages. Purposive sampling was chosen due to its effectiveness in identifying and selecting individuals. The first stage involved creating school clusters by town, categorizing them into Mzuzu City, rural Mzimba North, Lilongwe City, and rural Lilongwe. Schools chosen included both government-funded and private institutions. The study sites were selected based on their representation of urban and rural settings, logical feasibility, and potential pre-existing networks that could support the research process. Lilongwe, being the capital city of Malawi, offers an urban perspective, while Mzuzu provides an opportunity for a more rural city viewpoint, as it is less densely populated. This diversity is crucial for understanding the different challenges and resources available in varying contexts. The second stage involved identifying participating schools in each cluster, beginning with the largest schools and then including surrounding schools.

Measures

A questionnaire comprising four sections was used to assess primary school teachers' recognition and perceptions of students' mental health problems.

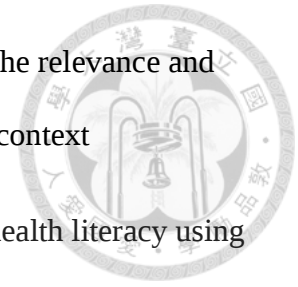
Part 1: Background variables

This part gathered teachers' demographic data such as age, sex, education level, religion, ethnicity, estimated yearly income, teaching position, name of school, type of school, and class size. The study also collected data on teachers' previous exposure to individuals and students with mental health challenges, prior participation in mental health training, perception of school counselor availability, and interest in receiving mental health training education.

Part 2: Vignettes of Children with Mental Health Problems

The second part of the survey included vignettes based on research conducted by Loades and Mastroyannopoullo in the UK, which can be traced back to a prior study led by Stein et al. and Day in 2002. The vignettes depict a male student with Oppositional Defiant Disorder (ODD) and a female student with Separation Anxiety Disorder (SAD). These vignettes were developed using the DSM-IV diagnostic criteria for child mental health problems (Loades & Mastroyannopoullo, 2010). Each vignette describes a hypothetical child, including their age, sex, and mental health symptomatology (Loades & Mastroyannopoullo, 2010). The vignettes were also designed to be culturally adaptable, with names, terms, and settings altered to make the stories more applicable to the local context. The name "Billy" was changed to "Joshua," and terminology was adjusted to reflect local usage: "Year" became "standard" for grade levels, and "neighbourhood" was replaced with "village." In Happy's vignette, the scenario was modified from "attend a party involving a sleep-over at another child's house" to a more culturally appropriate "gathering." Additionally, Happy's concern was shifted from her mother to her father, aligning with local family dynamics. The phrase "break time" was removed from the final sentence to further tailor the vignette to the cultural setting. These adaptations demonstrate a thoughtful approach to cultural nuance, ensuring that the vignettes resonated more authentically with the local participants. By carefully

adjusting language and scenarios, the researchers aimed to enhance the relevance and comprehensibility of the study materials within the specific cultural context

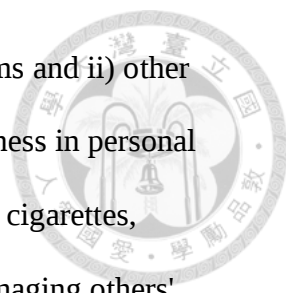


An extensive number of studies have also measured mental health literacy using vignettes (Ojio et al., 2015; Chorcora and Swords, 2022; Byrne et al., 2015). Vignettes, defined as "short scenarios" in written or pictorial form intended to elicit responses to typical situations offer a valuable approach for studying mental health knowledge (Hill, 1997, p. 177). The prime advantage of this approach is that it requires respondents to articulate responses based on their own attitudes and perceptions, providing more naturalistic answers (Loades and Mastroyannopoullo, 2010; Norcini, 2004).

Vignettes are commonly used in numerous studies to understand mental health recognition, as they help generate conversations on sensitive topics in challenging environments and allow participants to relate to scenarios they may face daily (Jorm et al., 2010; Tremblay et al., 2022). Following each vignette, a series of questions measures the Primary School Teachers' ability to recognize the disorder, their knowledge of available services, and their associated help-seeking behaviors, which were validated by previous studies (Loades & Mastroyannopoullo, 2010; Stein et al., 2001).

Part 3: Questions from the Strengths and Difficulties Questions (SDQ)

This part included questions from the Strengths and Difficulties Questionnaire (SDQ) as well as questions developed by Kerebih et al. The SDQ is a brief behavioral screening questionnaire commonly used to identify mental health problems in children and adolescents and is commonly filled by parents or teachers. It has 25 items on psychological attributes and includes five scales: emotional symptoms (5), conduct problems (5), hyperactivity/inattention (5), peer-relationship problems (5), and prosocial behavior (5). Two additional categories were included in this study: i) learning



problems such as spelling, reading, writing, and mathematics problems and ii) other problems included using obscene words, truancy from school, untidiness in personal hygiene, speech and language problems, substance use (e.g., alcohol, cigarettes, cannabis), suspicion, daytime wetting of clothes, and breaking or damaging others' property. Ratings use a 5-point Likert scale from 1 (not a problem) to 5 (very severe problem). The categories can be found in the appendix (Item A).

This part also includes two multi-response questions that explore the perceived causes of child mental health problems and the preferences of Primary School Teachers for referring students with mental health issues. Possible causes, influenced by cultural factors, encompass social determinants, heredity, school and home environments, possession beliefs, medical conditions, poverty, spiritual beliefs, witchcraft, trauma (physical or psychological), substance abuse, inadequate parenting, and other factors (Kerebih et al., 2016). Service provider options included school staff/other teachers, general hospitals, primary health care units, counsellors/psychologists, mental health clinics/nurses/psychiatrists, churches, traditional healers, and other providers (Kerebih et al., 2016).

Part 4: Availability and Importance of Mental Health

The final part of the questionnaire asked the participants about the perceived availability and importance of mental health related programs and services at their schools. The mental health services asked were school-wide bullying prevention programs, school-wide screening of mental health problems in students, clinical referral of students with mental health problems, student counseling services, teacher training on identifying students with mental health problems, and mental health support for teachers. The importance of these services was then measured on a 4-point Likert scale from 1 (important) to 4 (not important) (Jorm et al., 2010; Kerebih et al., 2016).

Statistical Approach

Data analysis was conducted using Excel, SPSS, STATA, and Python.

Descriptive analysis initially examined the distribution of demographic variables and other personal information. The accuracy of recognizing Oppositional Defiant Disorder (ODD) and Separation Anxiety Disorder (SAD) in the vignettes was analyzed using descriptive statistics and its associated factors examined using logistic regression.

For the responses to the SDQ scale, the sum score of the following seven categories was first calculated: emotional problems, peer-relations problems, conduct problems, hyperactive problems, pro-social problems, learning problems, and other problems. Those who scored higher than the mean of the categories were classified as perceiving severe mental health problems in students, while those who scored below the mean was categorized as perceiving less severe mental health problems in students. Linear regression was conducted to investigate the association of study variables with the sum scores (in z scores) of the SDQ categories.

The perceived causes of mental illness and preferred providers to refer students with mental health problems were analyzed using descriptive statistics and their associated factors examined using logistic regression, adjusted for all relevant variables. In the logistic regression analysis of the causes of mental illness, the dependent variable was a binary variable with a value of 1 for teachers who selected “being possessed” or “Spiritual factors” and 0 for all other teachers. In the logistic regression analysis of the preferred providers to refer students with mental health problems, the dependent variable was a binary variable with a value of 1 for teachers who selected non-medical referral options, i.e., “church” and “traditional treatment.”

The perceived availability and importance of mental health related programs and services at the teachers’ schools were analyzed using descriptive statistics.

Data Collection

Positionality

My motivation for initiating this study stemmed from my personal experience as an intern at St. John of God and Luke International during my time at National Taiwan University in July 2023-Aug 2023. I felt compelled to address the challenges faced by the community to improve mental health accessibility which deeply resonated with me. This experience inspired me to give back through this study. Recognizing my position as an outsider, referred to as a "Kasungu" by the Malawian children, I emphasized the importance of collaborating with local partners for cultural sensitivity and ethical integrity. Drawing on my background in public health, I approached the study with mindfulness and impartiality, acknowledging my potential biases. While aware of how my positionality could influence participant responses, I made efforts to minimize this influence by deferring to my co-investigator and team leader during data collection

Field Work Plan

Ethical approval was obtained from National Taiwan University (202401HM036) and the National Committee on Social Science and Humanities (NCRSH) in Malawi (NO.P.04/24/864) before data collection. Clearance was secured from the Lilongwe and Mzimba North District Education Manager's Offices before sampling primary schools. Local contacts in Mzuzu and Lilongwe facilitated reaching out to headteachers ahead of school visits. Appointments were crucial due to ongoing school exams. Coordination with headteachers determined optimal times for school visits and teacher participation in the survey. Paper and pencil were used for surveys due to limited electronic device access. Collaborators and research assistants visited schools to assist with survey administration.

Training sessions, both online and at the St John of God Meeting room, ensured everyone was prepared before fieldwork. The training document was shared beforehand to address any questions (Appendix, Item H). Data collection started in Lilongwe and Mzimba North district with teams of at least 4 members each. Teams had consent forms, surveys, and a rented car for efficient transportation. The actual data collection took place from May 27 to June 7, 2024.

Primary School Teachers discovered the survey questionnaire to be relevant, leading our team to refer them to the appropriate contacts at St John of God. The data collection team maintained regular online communication during and before data collection. Daily evening team meetings were held on working days to discuss progress and address any issues that arose, proving valuable in overcoming initial hurdles.

Challenges and Lessons in the field

The hurdles that came up included scheduling conflicts as we wanted to ensure that our study was not disrupting teachers' time necessitated visiting at specific hours and making multiple appointments as the first initial appointment was part of introduction. Schools were also very difficult to contact during exam periods due to full lockdowns of schools. Formatting of the questionnaire and the proper instruction given to teachers was essential. The most productive and efficient results were achieved when we spoke to the teachers as a group for 10 to 15 minutes. This allowed participants to either complete the survey with us present or give them the opportunity to return to their classes and return the survey once it has been completed.

Throughout the data collection, our team noticed that Mzuzu schools were a lot smaller than the Lilongwe schools and they had to travel farther distances to reach them in comparison. Thus, the Mzimba team worked in smaller groups, where they conducted the study by having the data collectors go through every question from start to finish.

We ensured our safety by keeping in touch regularly by phone and always being with another data collector.

Data collection also reminded us to be culturally considerate as it required patience due to the nature of the school settings and ensuring that we received headteacher approval prior to conducting our study. Thus, this resulted in our teams introducing ourselves multiple times, as in-person introductions and meetings are integral to Malawian culture. In addition, schools needed to find break times or prepare their teachers in advance to our arrival which made processes longer. Our study needed to be wary of previous research misconduct done at prior schools which resulted in some schools from being hesitant in partaking in our study but most schools who were able participated in our study.

Questionnaire formatting proved to be a significant limitation. Instructions such as "If no, please skip..." were not clearly indicated as my intention. Question 11 used the term "standard," equivalent to "grade" level, causing initial confusion. Questions 46 and 63 included terms like "fidgeting" and "truancy," which were not well understood despite prior collaboration with local partners. Due to time constraints, no test run of the interview was conducted.

Various obstacles arose during our study, such as scheduling conflicts, the need for specific visitation hours, and multiple appointments. Schools were particularly hard to reach during exam periods due to lockdowns. Effective communication and proper instruction were crucial, with the best results obtained from group discussions lasting 10 to 15 minutes. Mzuzu schools were smaller than those in Lilongwe, requiring the Mzimba team to work in smaller groups. Cultural sensitivity was essential, necessitating multiple introductions and approvals. Prior research misconduct made some schools hesitant, but most eventually participated.



Ethics Considerations and Data Management

Ethical approval was obtained from National Taiwan University (202401HM036) and the National Committee on Social Science and Humanities (NCRSH) in Malawi before commencing data collection (NO.P.04/24/864). Clearance from the Lilongwe District Education Manager's Office and Mzimba North District Education Manager's Office was secured before sampling primary schools. Local contacts in Mzuzu and Lilongwe facilitated communication with headteachers at various primary schools several weeks prior to visits.

Participants received a thorough briefing on their rights and the study's nature before consenting in participating. Emphasis will be on voluntary participation and the option to withdraw at any time as per training and consent form guidelines which was given at the start. Privacy was ensured to be protected by gathering only demographic information. Data was securely stored as digital copies and accessible only to the research team. Anonymity was maintained throughout data handling and analysis. The aim is to advance mental health in children and foster better mental health awareness among teachers.

Results

Socio-Demographic characteristics and Other Personal Information

The final sample consisted of 974 participants, including 828 (85.0%) in-service primary school teachers and 146 (15.0%) pre-service student teachers (Table 1). The majority of participants were females (n=810, 83.2%) compared to males (n=164, 16.8%). The age of primary school teachers ranged from 18 to above 65 years, with a mean age of 38. The largest age groups were 26-35 (n=325, 33.4%), 46-55 (n=262, 26.9%), and 36-45 (n=213, 21.9%).

Regarding education and training, 86.3% of in-service and pre-service teachers had teacher certificates. Approximately 6.7% of teachers had a Malawi School Certificate of Education (MSCE) or Junior Certificate of Education (JCE), which are high school and junior certificates, respectively. Less than 7% had a diploma or a degree.

All participants identified with a religion, with none selecting atheism. Participants identified as Protestant Christian (38.1%), Pentecostal/African Independent Christian (20.7%), Muslim/Other (38.1%), and Roman Catholic (19.2%).

Ethnicity results showed that participants identified as Tumbuka (30.4%), Chewa (28.7%), Ngoni (12.3%), and Other (28.5%). The "Other" category included ethnic groups such as Lomwe, Yao, Sena, Tonga, Ngonde, Lambya/Nyiha, Ndali, Nyanja, and Mang'anja.

The survey was conducted at 55 schools, with 25 in Lilongwe and 30 in Mzuzu. Most participants (91.8%) were from government public schools, while 8.2% were private school teachers.

Class sizes in Malawi are notably large compared to Western societies. Most class sizes for teachers were more than 110 students (n=226, 23.2%), followed by 71-90

students (n=186, 19.1%), 51-70 students (n=167, 17.15%), 91-110 students (n=144, 14.78%), and less than 50 students (n=121, 12.42%).

Results showed that 81.7% of participants knew someone with a mental illness, and 71.6% had taught learners with mental illness. Over 75% of participants had not taken any mental health training. Additionally, 53.5% of participants reported that there was a school counselor at their school. Most participants (94.6%) expressed interest in taking mental health training and education.

Recognition Accuracy of and Concerns about Clinical Vignettes

The results indicate a significant difference between participants' recognition of Oppositional Defiant Disorder (ODD) and Separation Anxiety Disorder (SAD). Problem recognition accuracy for the ODD vignette was 96.3%, compared to 88.6% for the SAD vignette (Table 2). However, most participants could recognize the mental disorder symptoms in both clinical scenarios.

Results of the fully adjusted logistical analysis showed that pre-service teachers were less likely to recognize ODD symptoms or as a problem in the vignette as a problem in comparison to in-service teachers (OR = 0.07; 95% CI = 0.01, 0.85; $p > |z| = 0.04$) (Table 3). Participants who knew someone with mental illness were 3.84 times more likely to recognize ODD as a problem (OR = 3.84; 95% CI = 1.58, 9.37, $p > |z| = 0.00$). Participants who were interested in mental health training and education were also 6.28 more times likely to recognize ODD as a problem in comparison to those who were not interested (OR = 6.28; 95% CI = 2.14, 18.50; $p > |z| = 0.00$). By contrast, teachers aged 46-55 years were less likely to recognize SAD as a problem (OR = 0.17; 95% CI = 0.05, 0.58, $p > |z| = 0.00$), while those with the most teaching experience at 21+ years were more likely to recognize SAD as a problem (OR = 4.08; 95% CI = 1.19, 13.98; $p > |z| = 0.03$) (Table 4).

Teachers' degree of concern for the vignette of ODD was highest for "extremely concerned" (55.3%) and "concerned" (33.0%) (Table 5). In contrast, the degree of concern for the vignette of SAD was highest for "concerned" (61.4%) and "extremely concerned" (21.2%). This indicated that, compared with ODD, primary school teachers are less concerned about students with SAD.

Perceptions of Severity of Students' Mental Health Problems

Table 6 shows participants' perception of severity of students' mental health problems based on the SDQ scores. Internalizing child mental health problems included categories of emotional problems and peer-relation problems. Externalizing problems included conduct problems, hyperactive problems, pro-social deficit problems, learning problems, and other problems. Perceptions of emotional problems (56.2%), peer-relationship problems (52.5%), hyperactive problems (58.2%), and pro-social deficit problems (52.5%) were rated as less severe by the majority of the participants. Perceptions of conduct problems (50.3%), learning problems (53.1%), and other problems (52.5%) scored higher in severity by participants. Therefore, internalizing child mental health problems were perceived as less severe in comparison to externalizing child mental health problems by teachers in Malawi.

Linear regressions were conducted to examine the association between the perceived severity of students' mental health problems in seven categories (emotional problems, peer-relationship problems, hyperactivity problems, conduct problems, pro-social problems, learning problems, and other problems) and socio-demographic variables and other personal information, all of which have been adjusted.

In Table 7, the linear regression of the z-score for emotional problems showed a positive association with ethnicity: those with Tumbuka ($B = 0.25$; $SE = 0.10$; 95% CI = 0.06, 0.44; $P > |t| = 0.01$) and Ngoni ($B = 0.24$, $SE = 0.11$, 95% CI = 0.02, 0.46; $P > |t| =$

0.03) ethnicities were more sensitive to emotional problems. Participants who were interested in mental health training scored lower in perceiving the severity of emotional problems ($B = -0.35$, $SE = 0.15$, $95\% \text{ CI} = -0.64, -0.05$, $P > |t| = 0.02$).

In Table 8, the linear regression of the z-score for peer relationship problems indicated that male participants scored lower on peer-relationship problems compared to female participants ($B = -0.22$; $SE = 0.10$; $95\% \text{ CI} = -0.42, -0.01$; $P > |t| = 0.04$).

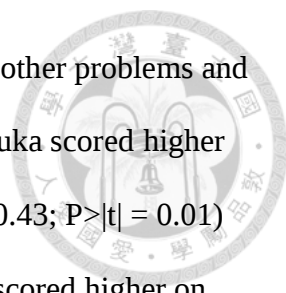
Participants who were interested in mental health training scored significantly lower in peer-relationship problems ($B = 0.38$; $SE = 0.15$; $95\% \text{ CI} = -0.68, -0.09$; $P > |t| = 0.01$).

In Table 9, the linear regression of the z-score for conduct problems showed that participants who had taught students with mental illness scored higher ($B = 0.18$; $SE = 0.09$; $95\% \text{ CI} = 0.00, 0.35$; $P > |t| = 0.05$).

In Table 10, the linear regression conducted to study the correlation between hyperactive problems and variables showed that participants who knew someone with mental illness scored lower in hyperactive problems ($B = -0.20$; $SE = 0.10$; $95\% \text{ CI} = -0.39, 0.00$; $P > |t| = 0.05$). However, participants who had taught students with mental illness scored higher in hyperactive problems ($B = 0.18$; $SE = 0.09$; $95\% \text{ CI} = -0.39, 0.36$; $P > |t| = 0.06$).

Linear regression conducted to study the correlation between pro-social problems and variables showed that males scored lower on pro-social problems in comparison to females ($B = -0.19$; $SE = 0.09$; $95\% \text{ CI} = -0.37, -0.02$; $P > |t| = 0.03$) (Table 11).

Linear regression conducted to study the correlation between learning problems and variables showed that participants who ethnically identified as Ngoni ($B = 0.23$; $SE = 0.11$; $95\% \text{ CI} = 0.02, 0.45$; $P > |t| = 0.03$) and Others ($B = 0.20$; $SE = 0.09$; $95\% \text{ CI} = 0.03, 0.38$; $P > |t| = 0.02$) scored higher in the severity of learning problems (Table 12).



Linear regression conducted to study the correlation between other problems and variables showed that participants who ethnically identified as Tumbuka scored higher in severity for other problems ($B = 0.24$; $SE = 0.10$; $95\% \text{ CI} = 0.05, 0.43$; $P > |t| = 0.01$) (Table 13). Participants who had taught students with mental illness scored higher on other problems ($B = 0.21$; $SE = 0.09$; $95\% \text{ CI} = 0.03, 0.39$; $P > |t| = 0.03$). Those who were interested in taking mental health training or education scored lower in other problems ($B = -0.42$; $SE = 0.15$; $95\% \text{ CI} = -0.72, -0.12$; $P > |t| = 0.01$).

Perceptions of Causes of Mental Health Illness

Teachers had varied perceptions of the causes of child mental health issues, with heredity (70.9%) and substance abuse (70.3%) being the most commonly cited factors. Medical illness (64.0%) and trauma (51.1%) were also significant (Figure 2). Noteworthy but less common factors included spiritual influences/witchcraft (37.7%) and possession (25.7%).

Table 14 shows the results of logistic regression analysis of factors associated with attributing “being possessed” or “spiritual factors” as the causes of child mental health problems (CMHPs). Those who identified as Roman Catholic ($OR = 0.60$; $95\% \text{ CI} = 0.39, 0.91$; $p > |z| = 0.02$) or Muslim/Other ($OR = 0.62$; $95\% \text{ CI} = 0.40, 0.94$; $p > |z| = 0.023$) and those who identified ethnically as Ngoni ($OR = 0.63$; $95\% \text{ CI} = 0.39, 1.00$; $p > |z| = 0.05$) were less likely to believe that CMHPs were caused by being possessed / spiritual factors. Private school teachers, in comparison to public school teachers, were also less likely to believe that the causes of CMHPs were due to being possessed / spiritual factors ($OR = 0.42$; $95\% \text{ CI} = 0.20, 0.90$; $p > |z| = 0.02$). Additionally, those who had taught students with mental illness were 1.52 times more likely to believe that CMHPs were caused by being possessed or spiritual factors ($OR = 1.52$; $95\% \text{ CI} = 1.05, 2.20$; $p > |z| = 0.03$).

Teachers' Rating of Availability and Importance of School-Based Mental Health Services



The majority of participants viewed all the mental health services as important or somewhat important (Table 15). However, most mental health services were perceived as not commonly available, except for student counseling services (70.1%) and teacher training on identifying students with mental health problems (52.9%).

School-wide bullying prevention program availability was reported at 34.4%. The majority of participants found it important (75.5%) and somewhat important (18.9%). School-wide screening of mental health problems availability scored the lowest at only 29.6%. However, the majority found it important at 75.1% and somewhat important (18.8%).

Clinical referral of students with mental health problems availability was 36.5%. Importance was seen high at 77.9% but there was a significant number of participants who thought it was only somewhat important 16.5%.

Student counseling services availability scored the highest availability at 70.1%. The majority of those who had it available ranked it important (80.7%) and somewhat important (16.9%).

Teacher training on identifying students with mental health problems availability was 52.9%. Importance was ranked the highest for important on all mental health services at (81.01%) and somewhat important (14.1%).

Mental health support for teachers' availability was 40.3%. Importance was ranked high at 80.8% and somewhat important at 13.2%.

School-wide bullying prevention, school-wide training prevention, clinical referral of students with mental health problems, and mental health support for teachers were found to be the most unavailable in their schools. Primary School Teachers found teachers training of identifying students with mental health problems (81.01%), mental

health support for teachers (80.8%), and student counselling (80.7%) of the highest importance.



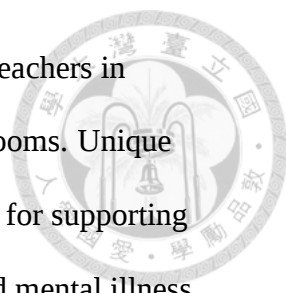
Referral of Child Mental Health Problems

In terms of referrals of child mental health problems, mental health professionals like clinical officers, nurses, and psychiatrists were the most commonly recommended providers, making up 79.4% and 72.3% of referrals (Figure 3). Counselors and psychologists followed closely with 72.3% of referrals. In contrast, referrals to churches (29.1%) and traditional remedies (7.3%) were less commonly mentioned but interesting non-medical services.

The logistic regression analysis of choosing non-medical services (i.e., “church” and “traditional treatment”) showed that teachers aged 36-45 years were 2.23 times more likely to refer students to non-medical treatments (OR = 2.23; 95% CI = 1.02, 4.83; $p > |z| = 0.04$) (Table 16). By contrast, those who identified as Roman Catholic were less likely to refer students to non-medical treatments (OR = 0.57; 95% CI = 0.36, 0.89; $p > |z| = 0.01$). Additionally, teachers with class sizes of 51-70 students (OR = 0.07; 95% CI = 0.00, 0.82; $p > |z| = 0.03$) or 91-100 students (OR = 0.06; 95% CI = 0.00, 0.82; $p > |z| = 0.03$) were also less likely to refer students to non-medical treatment.

Discussion

This study offers a detailed look at primary school teachers’ recognition and perceptions toward students’ mental health problems in Malawi. While there is progress in awareness and the availability of some training and counseling services, significant gaps remain in actual training uptake and support services. Addressing these gaps through targeted interventions and comprehensive mental health literacy programs is



essential to improve mental health outcomes in schools and support teachers in managing the mental health challenges they encounter in their classrooms. Unique cultural context and educational challenges provide valuable insights for supporting student mental health. Stigmatization drives negative attitudes toward mental illness (Kutcher et al., 2015, Kavalo et al., 2014, Aghukwa, 2009). Teachers may also experience mental health challenges influencing their views. From the data collection and first-hand experience in the field, it was evident that the majority of teachers found the study important and relevant to their students and children. Many of them sought guidance based on our findings.

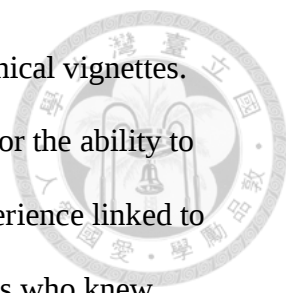
Main Findings

Training and Exposure

A significant aspect of the study revealed that only 23.2% of teachers in Malawi have received mental health training. While this figure represents an improvement from previous studies, it remains low on a global scale, with 76.7% of teachers lacking such training. Despite this, the exposure to mental health issues among teachers is notably high. An overwhelming 81.7% of teachers reported exposure to mental illness and disorders, and 71.6% had taught a learner with mental illness. 94.6% of study participants would be interested in mental health training and education. This high level of exposure contrasts sharply with the low percentage of teachers who have received formal training, highlighting a critical gap in the education system.

Identification and Concerns

Teachers in Malawi demonstrated a better ability to identify externalizing disorders, such as conduct disorders, compared to internalizing disorders. They also rated externalizing disorders as more severe. Primary School Teachers, in particular,



showed higher concern for Oppositional Defiant Disorder (ODD) clinical vignettes. Interestingly, sex did not significantly influence the level of concern or the ability to recognize mental health issues but those who had longer teacher experience linked to better recognition of Separation Anxiety Disorder (SAD). Participants who knew someone with mental illness were not sensitive to hyperactive problems but had better ability to identify ODD as a problem. However, participants were more concerned about learners that had learning problems (53.08%), other problems (52.05%), and conduct problems (50.31%) were the most severe child mental health problems. This suggests that while teachers may be aware of certain disorders, their overall training and resources to address a broad spectrum of mental health issues remain inadequate.

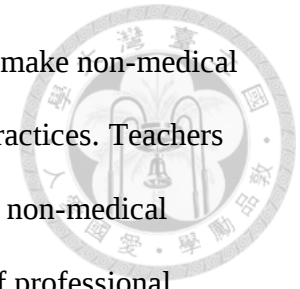
Perceived Causes of Mental Health Issues

The study identified heredity (70.9%) and substance abuse (70.3%) as the most frequently cited causes of mental health issues among teachers. Other significant causes included medical illness (64.0%) and psychological or physical trauma (51.1%). Surprisingly, social factors, problems at school or home, poor parenting, and poverty were not ranked as significant causes. This perception indicates a potential gap in understanding the multifaceted nature of mental health issues and the various contributing factors that can affect students' mental well-being.

Referral Preferences

When it comes to referring students for mental health support, teachers showed a strong preference for mental health professionals (79.4%) and counselors/psychologists (72.3%). However, cultural practices also played a significant role, with a notable percentage of teachers willing to refer students to churches (29.1%) and traditional

healers (7.3%). Teachers aged 36-45 were 2.23 times more likely to make non-medical referrals, indicating age as a potential variable influencing referral practices. Teachers who have class sizes of 51-70 and 91-100 were less likely to refer to non-medical treatments. This dual approach to referrals reflects the intersection of professional mental health support and traditional cultural practices in addressing mental health issues.



Availability Discrepancies and Importance

The availability of mental health training and resources presents a mixed picture. While 52.9% of teachers reported the availability of mental health training, over 75% have not taken any training, highlighting significant discrepancies in training uptake. The presence of counselors (52.5%) and student counseling services (70.1%) was relatively high, yet the availability of mental health screening (29.6%) and mental health support (40.3%) was low. This discrepancy is concerning given the high importance that teachers place on these services for timely interventions.

Demographic Influences

Ethnicity, sex, experience, and age with mental illness significantly influenced teachers' perceptions and practices. Tumbuka teachers were more sensitive to emotional problems, while Ngoni and other ethnic groups were more attuned to learning problems compared to Chewa teachers. Male teachers scored lower on peer relationship problems and pro-social problems compared to female teachers. Teachers who had taught learners with mental illness scored higher in recognizing conduct and hyperactive problems and were more likely to attribute mental illness to possession or spiritual factors. Age also played a role, with teachers aged 36-45 more likely to refer to non-medical treatments,

while those aged 44-45 were less likely to identify students with Social Anxiety Disorder (SAD).



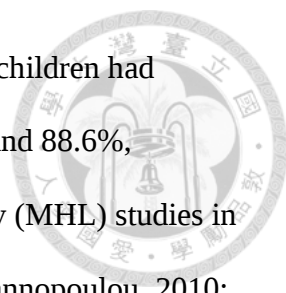
Comparison to Previous Studies

Training and Exposure

Mental health training was considerably higher than in previous studies, with 23.2% of participants having received training compared to a small 5.6% in an Ethiopian study (Kerebih et al., 2016). However, this is still low globally, as 76.7% have not taken mental health training, which aligns with another Nigerian study (Oshondi et al., 2013). In a Zimbabwe study, the majority of individuals had never heard of or were unsure about mental health in schools in general, and only 20% reported having a counselor (Sibanda et al., 2022). Results also demonstrated high exposure to mental health issues among participants: 81.7% reported exposure to mental illness and disorders, and 71.6% had taught a learner with mental illness. However, only 23.3% had received training on mental health.

94.6% of teachers expressed interest in mental health training and interventions, as well as the importance of mental health services availability. This aligns with a Nigerian study that found key informants such as teachers would be receptive and comfortable in responding to mental health problems, as many are also parents and act as parental figures to their pupils (Ibeziako et al., 2008). This highlights the need for task-sharing in every school as it underscores the necessity of creating school-based approaches to alleviate the demand for counselors. Stigmatization remains prevalent, though those with higher education held less stigma in Southern Nigeria (Aghukwa, 2009).

Identification and Concerns



The majority of participants were able to recognize that both children had clinical symptom problems in the ODD and SAD Vignettes (96.3% and 88.6%, respectively). This finding aligns with previous mental health literacy (MHL) studies in terms of disorders (Ni Chorcoa & Swords, 2022; Loades & Mastroyannopoulou, 2010; Byrne et al., 2015). The results indicating that teachers were better at identifying externalizing disorders compared to internalizing disorders are consistent with previous research (Splett et al., 2019; Loades & Mastrsoyannopoulou, 2010).

Teachers rated a higher severity of concern for externalizing disorders compared to internalizing disorders, which is consistent with previous studies (Splett et al., 2019; Loades & Mastrsoyannopoulou, 2010). Similarly, Primary School Teachers perceived higher concern with the ODD clinical vignettes, aligning with previous findings that students with disruptive problems are more likely to be referred for additional help (Splett et al., 2019). Notably, recognition accuracy and higher concern for both externalizing and internalizing disorders reflect the likelihood of teacher referrals (Splett et al., 2019).

Externalizing behaviors seen as more severe were also aligned with previous studies (Loades & Mastrsoyannopoulou, 2010; Anh et al., 2014, Little and McLennan, 2010). Participants who had the most teaching experience were more likely to recognize SAD which is aligned with however sex did not have any association with concern or recognition, as seen in previous studies (Chorcoa & Swords, 2022). Exposure and experience played a role as participants who knew someone with mental illness had an increase recognition in ODD however pre-service teachers were less likely to identify ODD in comparison to in-teachers which reflect the lack of practical experience or insufficient knowledge on mental health symptoms (Brann et al., 2022, Whitley and Gooderham, 2016).

Perceived Causes of Mental Health Issues

Results showed that heredity (70.9%) and substance abuse (70.3%) were the most frequently cited causes of mental health issues. Similarly, 95% of adolescents in Malawi attributed mental disorders with substance abuse (Kutcher et al., 2015). Medical illness (64.0%), and Psychological and physical trauma (51.1%) were also reported in significant proportions. A large percentage of participants attributed child mental health illness to spiritual factors, aligning with previous studies that found many people attribute mental illness to substance abuse and supernatural forces (Kokota et al., 2023; Wright & Maliwichi-Seganimalunje, 2020; Kutcher et al., 2015 Chilale et al., 2017; Sorsdahl et al., 2010).

In Malawi, the causes of mental illness are understood in three categories: physical/biological, psychological, and socio-cultural (Chilale et al., 2017). These perceived socio-cultural causes also influence the perception of physical/biological causes such as substance abuse and heredity, fostering stigma and discrimination (Kutcher et al., 2015; Kavalo et al., 2014; Chilale et al., 2017).

Surprisingly, social factors, problems at school and home, poor parenting, and poverty were not ranked as significant causes, which is contrary to findings in many studies (Kerebih et al., 2016; Anh et al., 2004; Ibeziako et al., 2012). In Nigeria, key informants also included the perinatal period and ignorance as factors, which was similarly found among Malawian teachers in their open responses of "problems at birth" (Ibeziako et al., 2008). Nigerian adults believed that God created them as they are (Ibeziako et al., 2008). Exposure of those who taught learners with mental illness were also more likely to believe mental illness was caused by being possessed or spiritual factors which is a combination of strong cultural beliefs and lack of education.

Referral Preferences

Referrals from the perceptions of Malawian teachers indicated a preference for mental health professionals (79.4%) and counsellors/psychologists (72.3%). This contrasts with other Sub-Saharan African studies where primary recommendations were for general hospitals, with only half recommending professionals (Kerebih et al., 2016; Oshodi et al., 2013; Ibeziako et al., 2008; Aghukwa, 2009). This suggests that Malawian in-service and pre-service teachers are aware of appropriate referral sources for mental health crises but lack access to these resources. Interestingly, Malawian teachers were also more likely to refer to colleagues at school compared to previous studies where such referrals were below 15% (Kerebih et al., 2016; Oshodi et al., 2013).

Due to inadequate mental health care infrastructure in low-income countries, fewer people seek professional assistance, often facing inconsistent services and lengthy waits (Kokota et al., 2023). For instance, patients with psychosis in Malawi were found to wait an average of 225 weeks for treatment (Chilale et al., 2014). Additionally, a study on key informants in Nigerian schools reported that they did not believe children could be diagnosed with mental health issues, and if they were, they would be deemed "insane" (Ibeziako et al., 2008).

The results show that a large percentage of participants would refer their students to churches (29.1%) and traditional healers (7.3%). This aligns with previous studies indicating that traditional health practitioners are often the first point of contact for people with mental illness, specifically in Malawi, where 22.7% of psychiatric patients initially sought help from traditional healers (Lilford et al., 2020; Kauye et al., 2015; Chilale et al., 2017). These traditional healers often use plant or animal substances for treatment. Open-ended responses in the study also revealed that some

participants would refer individuals with mental illness to the police, consistent with similar findings (Kokota et al., 2023). Those aged 36-45 were also most likely to make non-medical referrals, suggesting age as a potential variable.



These causal perceptions influence help-seeking pathways (Chilale et al., 2017). This biopsychosocial understanding of illness creates barriers to seeking help from hospitals (Chilale et al., 2017). Although the results showed that a certain percentage would refer to healthcare providers, patients face physical, psychological, and socio-cultural barriers (Chilale et al., 2017). These barriers include stigma, religious beliefs, medication shortages, lack of social support, and distance to medical services, which explain why participants selected non-medical services (Sibanda et al., 2022; Oshodi et al., 2013; Chilale et al., 2017). Teachers in Nigeria also associated those with mental illness with potential dangers and would recommend them to be placed in general hospitals away from society (Aghukwa, 2009). Participants with class sizes of 51-70 and 91-100 were less likely to refer to non-medical treatments.

Christian healing ministries, particularly Pentecostal and Apostolic churches, are commonly consulted for mental health problems (Kokota et al., 2023). Roman Catholics and Muslims/Other may be less likely to refer to non-medical treatments compared to Pentecostal and African Independence due to their religious teachings and the church's advocacy for professional healthcare, including evidence-based medical treatments. However, referrals were often challenged as teachers failed to offer or link students with appropriate support systems (Sibanda et al., 2022).

Interestingly, teachers found that colleagues would rather speak with parents or other colleagues than with child and adolescent mental health services (Ford and Nikapota, 2000). A study conducted in Korea revealed that only 10.7% would seek help from psychiatrists for children at risk, indicating an unwillingness to consult mental

health professionals (Anh et al., 2004). This contrasts with our results, which show that Malawian teachers would refer to recommended health services.



Availability Discrepancies and Importance

Positive findings indicate progress in the higher availability of teacher training and student counseling compared to other studies (Kerebih et al., 2016). However, there are discrepancies: 52.9% reported the availability of teacher training, yet over 75% of teachers have not taken any training, highlighting variations in training availability similar to Reinke et al.'s study.

Similar to previous research, the vast majority of participants did not have access to mental health services in schools but rated these services as "important" (Kerebih et al., 2016; Ni Chorcoa & Swords, 2022). The low availability of mental health services aligns with previous studies (Kerebih et al., 2016; Reinke et al., 2011). This was also evident in an Iraqi study where there was a high unmet need (Al-Obaidi et al., 2012). A Nigerian study on teachers also showed similar results, emphasizing that teachers must be actively involved for changes to occur and for mental health services to be implemented (Oshondi et al., 2013). In comparison, the presence of a counselor (52.5%) and student counseling (70.1%) was very high compared to the Ethiopia study (Kerebih et al., 2016). The implementation of training and referral processes in school mental health training received mixed responses, with suggestions for teachers, principals, and parents in Nigeria (Oshodi et al., 2013). The children themselves preferred to speak with their teachers about their mental health care (Oshondi et al., 2013).

School-wide bullying prevention programs were reported by only 34.4% of teachers. Bullying prevention is particularly important in Low and Middle-Income Countries

(LMICs) due to high rates of bullying. A mental health promotion intervention in Iran demonstrated that bullying rates significantly decreased following implementation (Azad et al., 2012). Bullying was considered high in the Oshondi et al., 2014 study. However, the high importance and availability of student counseling indicate that schools in Malawi recognize its importance.

The low availability of mental health screening (29.6%) and mental health support (40.3%) is concerning given its high importance rated by teachers, which is crucial for timely interventions. This aligns with a study on teachers' mental health during the COVID-19 pandemic, where teachers reported a prevalence of mental health issues (Ferrari et al., 2024; Rao and Rao, 2021). In Nigeria, when teachers identified students with mental illness, they used various methods such as physical punishment, changing seating arrangements, isolation, counseling, words of encouragement, and prayer (Ibeziako et al., 2008). Teachers in Zimbabwe doubted their self-efficacy in dealing with mental health problems (Sibanda et al., 2022).

Demographic Influences

With the socio-demographic findings, the sample size and composition were larger than average. Education with certification was also quite high at 86.3% with teaching certificates, which may influence attitudes and perceptions. Sex, ethnicity, experience, and age were significant influences of teacher's perceptions and attitudes. The study was predominantly female (83.2%), which is a common sex imbalance in education settings. Male participants scored lower on peer-relationship and pro-social problems, which aligns with findings that females show greater concern for affected children, consistent with sex differences found in previous studies (Ni Chorcoa & Swords, 2022). This includes symptoms such as lack of consideration for others'

feelings, unkindness to young children, reluctance to help those in distress, refusal to share with other youth, being bullied, preference for solitude, and better relationships with adults than peers. This is relevant as Kerebih's study demonstrated that females rated mental health problems with higher severity (2016).

However, participants aged 44-55 were less likely to identify those with internalizing problems such as SAD but teachers with over 21 years of experience were more likely to recognize ODD. Those who identified as Tumbuka were more sensitive to emotional problems and other problems compared to the Chewas. Those who identified as Ngoni and Other ethnic groups were more sensitive to learning problems compared to Chewa.

Explanation of Ethnicity Association with Results

Unfortunately, there are very few studies on the different ethnic groups in Malawi, making it challenging to interpret cultural variations in mental health perceptions. However, there are notable cultural differences between the northern and southern tribes, as data was collected from two distinct regions. The significant difference lies in their adherence to different customs, particularly regarding gender roles.

In the Northern region, particularly among the Tumbuka and Ngoni ethnic groups, a patrilineal system is followed. Conversely, the Chewa and Yao in the south adhere to a matrilineal system. This distinction manifests in marriage customs: in the north, when a couple marries, they typically reside with the husband's family, whereas in the south, the male would move into the woman's household. Additionally, in the north, males tend to have more authority in decision-making, while in the south, the power dynamic is more balanced.

It is reasonable to hypothesize that these cultural differences may influence perceptions and attitudes towards mental health among these groups. However, without specific studies on mental health perceptions across these ethnic groups, any conclusions drawn would be speculative. Further research is needed to explore the potential impact of these cultural variations on mental health attitudes and practices in Malawi.

Severity of Problems and Others

The results revealed that 23.2% of teachers handle more than 110 students. This aligns with research indicating that children in low- and middle-income countries (LMICs) attend schools with larger class sizes and receive poorer quality education (Viner et al., 2012). This finding is significant for understanding the challenging situation teachers face when managing large numbers of students and considering potential interventions. Perceptions of mental health in Malawi demonstrate limited mental health literacy, especially regarding internalizing problems, which aligns with a study conducted in India (Cruz et al., 2021). The high percentage (over 50%) of teachers rating various problems as less severe suggests a potential lack of awareness and understanding. However, the perception of learning problems as more severe aligns with an educational focus and may indicate better comprehension of these issues.

In the original Ethiopian study, hyperactivity, conduct, and peer-related problems were rated as the most common child mental health problems (Kerebih et al., 2016). In contrast, Malawian teachers believed more severe problems were learning problems (53.08%), other externalizing problems (52.05%), and conduct problems (50.31%). Similarly, key informants in Nigeria reported that identifying those with mental illness was related to academic performance problems, behaviors in the classroom, speech

problems, and physical attributes (Ibeziako et al., 2008). In a Zimbabwe study, aggression and unexplained absenteeism were rated as the most common mental health problems (Oshodi et al., 2013).

Participants interested in mental health training scored significantly lower in emotional problems, peer relationship problems, and other problems. This suggests that they may have enhanced knowledge, increased confidence, and participate in proactive interventions.

Participants who had been exposed to mental illness scored higher in hyperactive problems. Hyperactive problems include examples such as impulsivity and restlessness, while conduct problems encompass behaviors like frequent temper loss, lying, cheating, and stealing. This finding suggests either a lack of awareness, insufficient training, or differences in resilience and vulnerability to mental health problems among these participants.

These findings differ from a study conducted with teachers in Nigeria, which found that years of teaching and educational qualifications did affect attitudes towards those with mental illness (Aghukwa, 2009). In that study, those who had taught longer viewed individuals with mental illness more positively but still preferred not to be in close social proximity (Aghukwa, 2009).

Research Strengths and Limitations

Strengths

This study is one of the first to explore and assess primary school teachers' perceptions and attitudes towards child mental health problems, providing a broader perspective on Malawi's population and views in a low-middle-income country. It is a quantitative study with a sample size of over 1,000, which is higher than previous

studies and the largest of its kind. As a result, this will help in integrating mental health services into school settings.



Limitations

This study has several limitations. Firstly, the survey did not cover the entire population of primary teachers, gathering data only from teachers in two cities.

Additionally, the sample may be biased toward those more willing to participate in mental health education, as teachers who refused to participate did so at the outset.

The questionnaire was in English, assuming that all teachers were proficient in the language, which may have led to misunderstandings or misinformation in their responses. The language barrier, compounded by the fact that the questionnaire was not translated into Chichewa, may have restricted genuine responses; however, translation assistance was available from data collectors upon request.

There was no qualitative interpretation, and the levels of certain measurements were limited due to the lack of follow-up questions, such as inquiries about the level of training or whom they would consider a counselor in their school. No qualitative interviews were conducted, and several potentially influential variables, such as the mental health of primary teachers, were not included. The interpretation of symptomatology may vary among participants, with terms like "problem" potentially carrying different meanings.

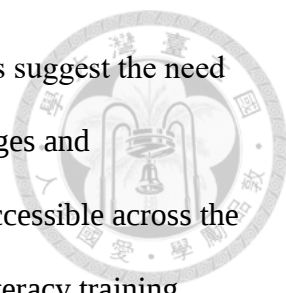
The vignettes used in the study were taken from the original research, presenting all participants with the same clinical vignette for both Oppositional Defiant Disorder (ODD) and Social Anxiety Disorder (SAD) with severe symptoms. Sex and severity level were not included as variables due to constraints on questionnaire length. The condensed nature of the vignette may not accurately reflect how information would be

presented in a classroom setting (Loades and Mastroyannopulo, 2010). Moreover, teachers' reactions in real-life settings may differ, highlighting the limited ecological validity of the vignettes (Lucas et al., 2008). The vignettes also focused only on specific clinical disorders such as ODD and SAD, while Attention Deficit Hyperactivity Disorder (ADHD), another prevalent disorder in children, was not measured, despite being addressed in various studies on children's mental health problems.

The correct identification of ODD and SAD was based on recognition standards and criteria established by Western frameworks. It remains to be seen whether it is acceptable and feasible to apply these standards in the study's context. Lastly, the healthcare infrastructure for mental health services in the study area is minimal and struggling, potentially rendering some of the resources mentioned in the survey inapplicable. The study was also influenced by research conducted in high-income settings, such as the United Kingdom, which may not be directly applicable to lower- and middle-income countries. Consequently, the results and main findings may not fully represent the local context.

Implications

This study aims to inform global institutions, policymakers, the Ministry of Health, Ministry of Education, and teacher training colleges about recognition, perceptions, and mental health literacy among teachers. Understanding teachers' mental health literacy can improve support for both students and teachers, creating successful learning environments for those with mental health needs. This aligns with the Ministry of Health's April 2020 policy to enhance mental health services, as well as Malawi's Health Sector Strategy Plan III 2023-2030, which aims to address teacher shortages through increased training and recruitment.



Our study's findings on teacher's mental health literacy levels suggest the need for mental health training to be incorporated in teacher training colleges and implementation to current teachers. This training needs to be more accessible across the country. We recommend implementing a mandatory mental health literacy training module for all pre-service teachers, with annual courses for in-service teachers. It can also be integrated into existing teacher training programs and professional development courses which can improve identification and support. Based on current teacher-student ratios, training one-tenth of teachers as mental health first responders could potentially reach over a hundred thousand students annually. This enhanced learning environment can also be supportive to student's well-being and academic performance creating a more inclusive atmosphere.

To meet the demand for counselors in schools, a potential intervention is training selected individuals, such as teachers. Despite time limitations, health education should be encouraged in the curriculum (Zimmerman et al., 2015). These subset teachers should be provided with specialized training in mental health first aid and counseling techniques. With trained counsellors available in schools, students can receive timely support and care from individuals who engage with the learners regularly. Integration of mental health into school curriculum is crucial to raise awareness and educate both teachers and learners about mental health which can impact by increasing awareness and reducing stigma whilst encouraging students to support their peers and seek help.

Tools must be culturally sensitive in Malawi to ensure acceptance. Simplicity is key for teaching and wider sharing, while training and proper assessments are crucial to prevent underdiagnosis. These culturally tools are more assessments aid in identifying

needed support and referrals. The lack of implementation is also challenged by the lack of mental health literacy among teachers (Kapungwe et al., 2011). Potential barriers

Governmental, multilateral, and non-governmental sources, along with leading donors, should allocate investments for mental health development. This could prompt local government investments, essential for population welfare (Gilbert et al., 2015). Mental health training must be integrated as teacher numbers rise, with community leaders and schools working together to provide interventions. Schools need motivation and awareness of the urgency in caring for children's mental health.

Recommendations include advocacy, capacity building, service provision improvements, and inter-agency collaborations (Mendenhall et al., 2014). These efforts should be supported by human resources, materials, and finances, along with government backing, public awareness campaigns, and training initiatives (Ibeziako et al., 2008). Adequate funding is essential to ensure the sustainability of these programs, providing continuous support for training, resources, and interventions.

Challenges to be aware of include limited resources, cultural barriers, competing health priorities, policy and regulatory gaps, and continuity of care. Implementation timelines should encompass short-term goals such as conducting comprehensive needs assessments, developing culturally sensitive mental health awareness materials for communities, initiating basic mental health first aid training for pilot group teachers, and establishing partnerships with local and international organizations. Medium-term goals should include implementing mandatory mental health training for pre-service teachers in teacher training colleges, developing pilot school-based mental health screening programs, establishing networks of community-based mental health support groups, introducing basic mental health education into school curricula, and beginning the training of selected teachers as school counselors in pilot schools. Additionally, we

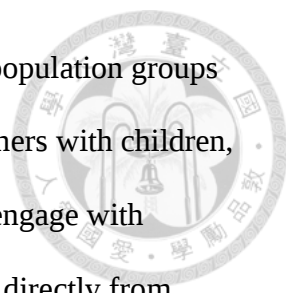
hope to implement various methods of training and education. Although it may be challenging due to the large class sizes, we hope educators can adapt effectively.

Regarding the labeling of children with diagnoses, there are important considerations to be mindful of. It is crucial to rely on our understanding and advocate for awareness to find solutions that best fit different contexts. While medication may be a solution, it is important not to rely solely on it and to explore alternative methods whenever possible.

We must advocate for a deeper examination of the broader moral implications of these diagnoses on young people. Community education that promotes accurate labeling of psychosis should proceed with caution and address beliefs about dangerous unpredictability (Wright et al., 2011). To avoid stigmatization following labeling, awareness is crucial. Lastly, we must celebrate diversity, as it promotes inclusiveness, understanding, and tolerance.

Future Direction

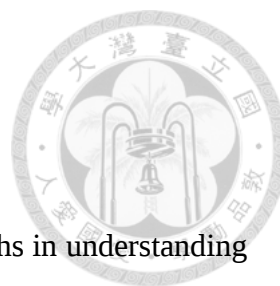
Future research can use my results for more comprehensive surveys and interventions that explore the various factors and relationships between variables, as this study was designed as an exploratory study, providing insight into the current situation as the first of its kind. There can be an increase in vignettes, scales regarding mental health, health-seeking behaviors, and resources that can be more comprehensively studied. A scale with high internal validity would truly grasp the ongoing situation. Other future outcome variables that would be interesting to measure include personal and perceived stigma, intended helping behaviors towards students such as conversing with students, direct help given towards students, interacting with colleagues, and how they seek additional mental health information (Jorm et al., 2010).



I would be interested in conducting this study with different population groups such as secondary school teachers, healthcare professionals, and mothers with children, as their perceptions and attitudes are critical since they also directly engage with children in their day-to-day lives. It would be valuable to gather data directly from children, as their perspectives would be extremely informative. Children's mental health care is crucial, as they can potentially influence individuals in their homes and communities, creating a domino effect (Bruland et al., 2017). Teachers play a vital role in promoting mental health at both micro and macro levels by sharing information and encouraging health-seeking behaviors (Tourigny-Conroy, 2020).

Policymakers, healthcare workers, and educators need to incorporate more mental health training and interventions. An intervention involving a year of training for a lay counselor, who could be a teacher, should be conducted to ensure there is a designated staff member in every school. In the USA, after examining mental health services, one staff member such as a counselor, social worker, or delegated teacher was responsible for providing mental health services (Teich et al., 2007). This approach would allow both children and staff to have an individual they can approach for counseling or other support.

A control study comparing those who have been trained and those who have not would be an interesting next step. Additionally, a longitudinal comparison study could explore how perceptions and attitudes of Primary School Teachers change if systematic changes are implemented. However, these new directions will require significant contributions from institutions and local collaborators, as support in translation, cultural adaptability, feasibility, and acceptability would be necessary (Ibeziako et al., 2008). Monetary assistance would also be highly beneficial for implementing these studies and interventions.



Conclusion

In conclusion, the research highlights significant breakthroughs in understanding the attitudes and perceptions of teachers in Malawi regarding mental health. Teachers generally rated children's externalizing mental health problems as more severe than internalizing problems. While most Malawian teachers recognize whom to refer students to for mental health issues, they lack access to appropriate services. The majority have a positive attitude towards the importance of mental health services and training programs. The findings underscore the urgent need for enhanced mental health training and resources to support teachers in managing mental health challenges within the educational environment.

While there is progress in awareness and the availability of some training and counseling services, significant gaps remain in actual training uptake and support services. Addressing these gaps through comprehensive mental health literacy programs and targeted interventions is essential to improve mental health outcomes in schools and support teachers in their critical role. The integration of professional mental health support with culturally sensitive practices presents a promising direction for future initiatives aimed at fostering a more inclusive and effective approach to mental health in education. Addressing systemic challenges and sociocultural factors through policy changes and locally-based interventions can effectively improve the mental health landscape for children in the country.

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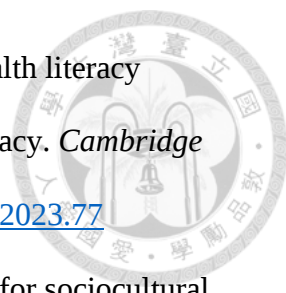
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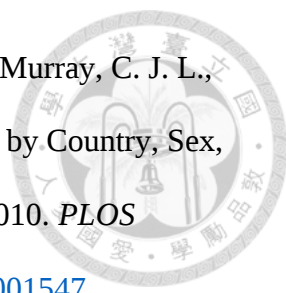
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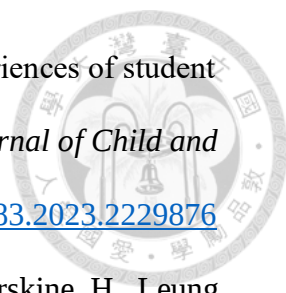
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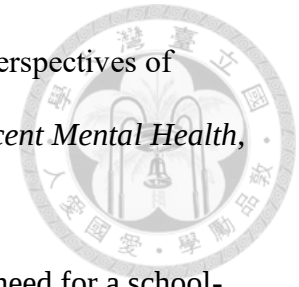
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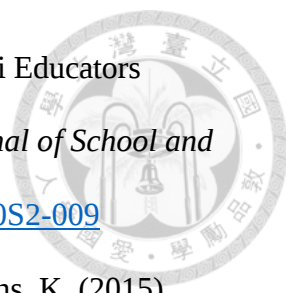
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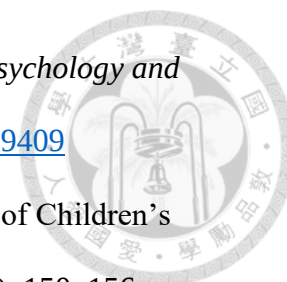
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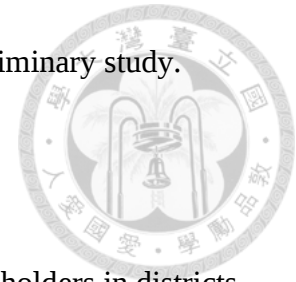
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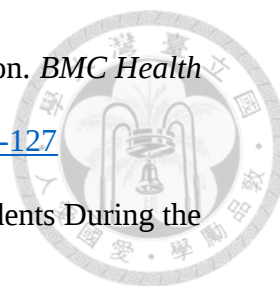
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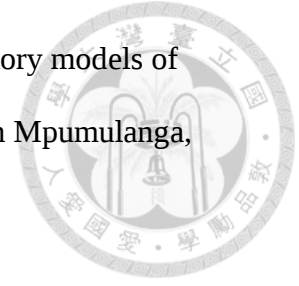
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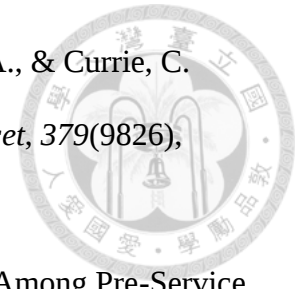
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Figures

Figure 1. Flow Chart of Study Sample inclusion.

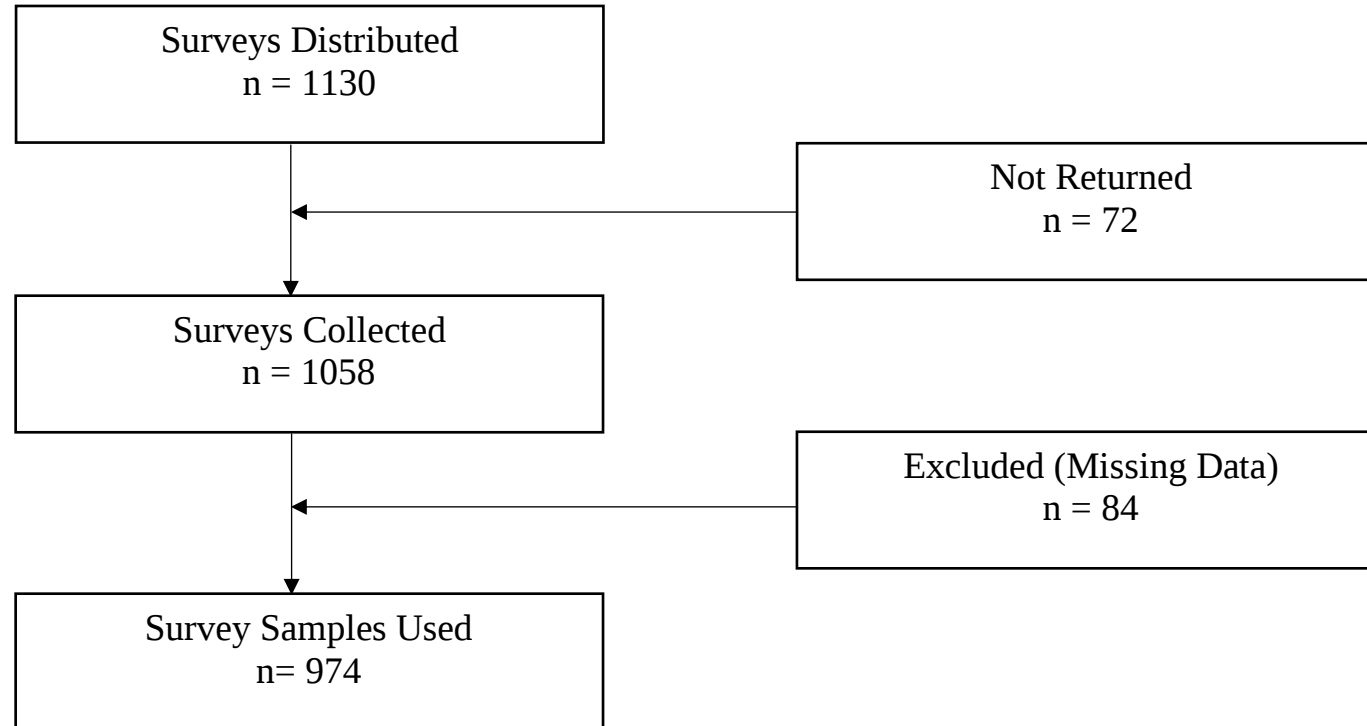


Figure 2. Perception of Causes of Mental Health Illness in Children of 974 pre-service and in-service teachers in Malawi

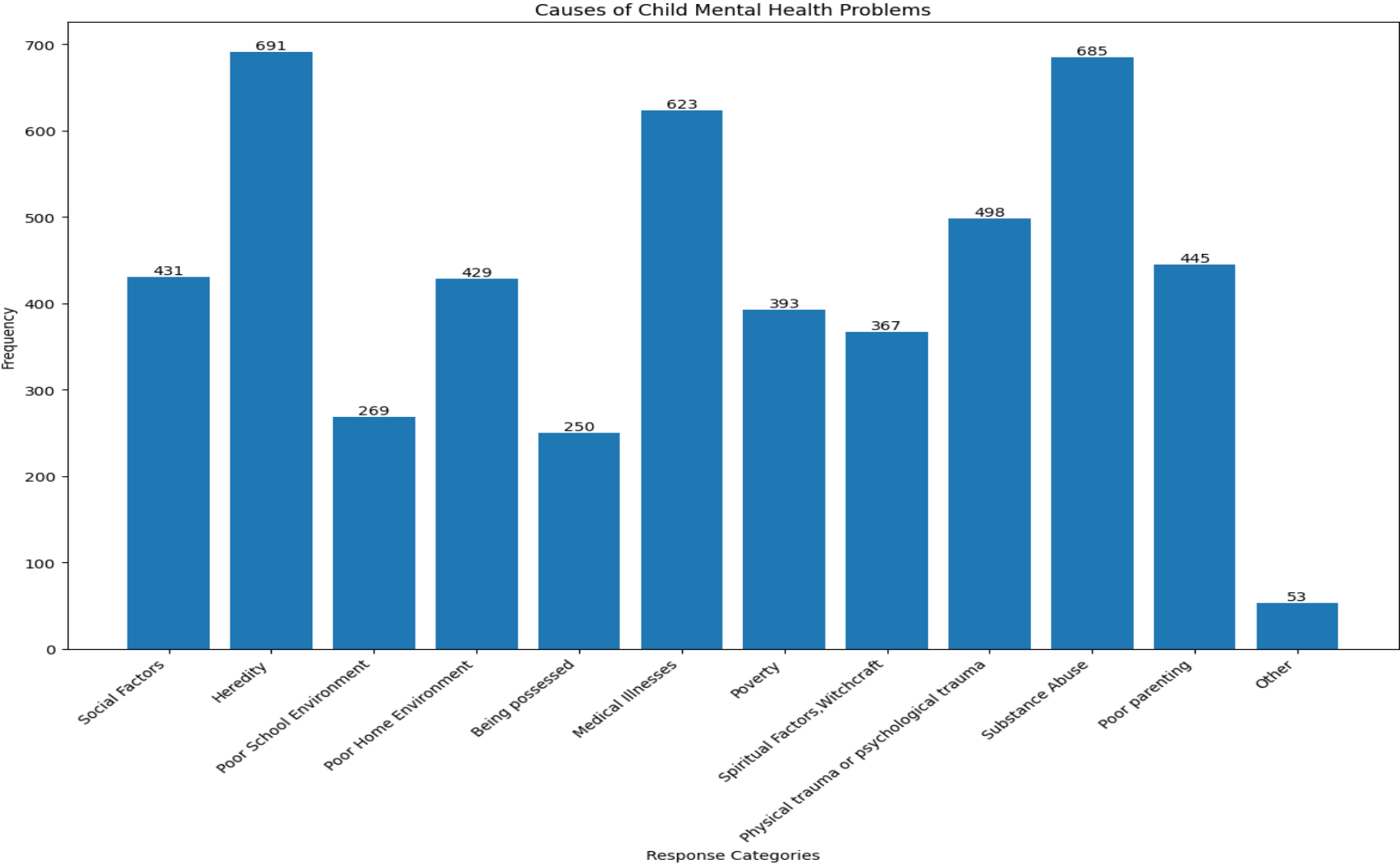
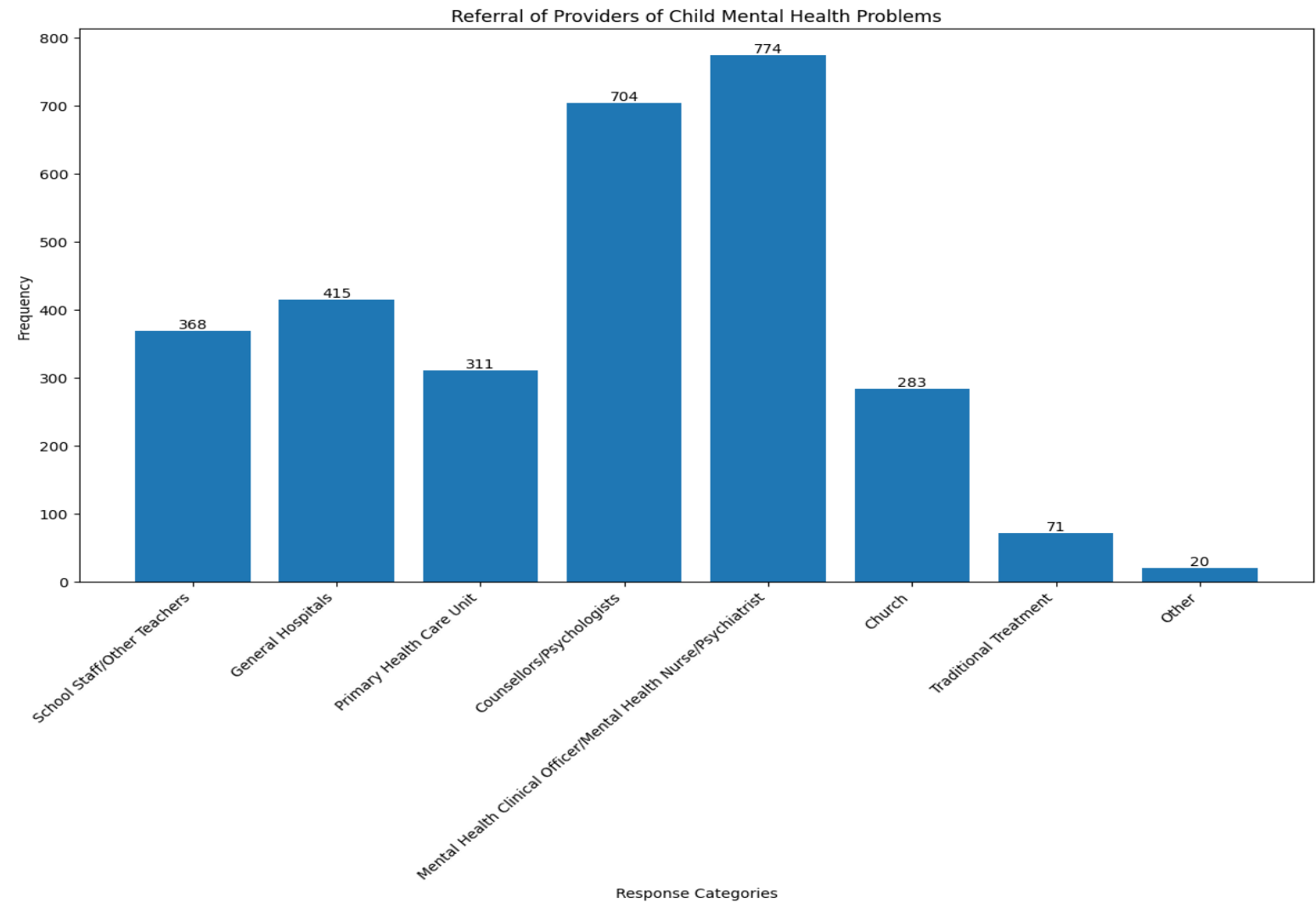


Figure 3. Preferred Mental Health Providers to refer Students with Mental Health Illness in 974 pre-service and in-service teachers in Malawi





Tables

Table 1: Socio-Demographic Characteristics and Other Personal Information

Table 1: Table for Socio-Demographic Characteristics and Other Personal Information			
Characteristics	Subcategory	Frequency	(%)
Region	Lilongwe	574	58.9
	Mzimba	400	41.1
Age	18-25	133	13.7
	26-35	325	33.4
	36-45	213	21.9
	46-55	262	26.9
	56+	41	4.2
Sex	Female	810	83.2
	Male	164	16.8
Education	JCE-MSCE	65	6.7
	Teaching Certificate	841	86.3
	Diploma/Degree	68	7.0
Religion	Pentecostal/African Independent	202	20.7
	Roman Catholic	187	19.2
	Protestant	371	38.1
	Muslim/Other*	214	22.0
Ethnicity			



	Chewa	275	28.2
	Tumbuka	298	30.6
	Ngoni	123	12.6
	Other*	278	28.5
Position	Teacher	828	85.0
	Student Teacher/Teacher in Training	146	15.0
Experience	0-5 years	256	26.3
	6-10 years	254	26.1
	11-20 years	201	20.6
	21+ years	263	27.0
Public	Government/Public	894	91.8
	Private	80	8.2
Standard	0	134	13.8
	1	101	10.4
	2	107	11.0
	3	108	11.1
	4	114	11.7
	5	141	14.5
	6	114	11.7
	7-8	155	15.9
Class Size	0 students	130	13.4
	Less than 50 students	121	12.4
	More or equal to 51-70 students	167	17.2



	More or equal to 71-90 students	186	19.1
	More or equal to 91-110 students	144	14.8
	More than 110 students	226	23.2
Know anybody with mental illness			
	Yes	796	81.7
	No	178	18.3
Taught students with mental illness			
	Yes	697	71.6
	No	277	28.4
Taken MH training			
	Yes	227	23.3
	No	747	76.7
School Counsellor at your school			
	Yes	525	53.9
	No	449	46.1
Interested in MH training/education			
	Yes	921	94.6
	No	53	5.4

*Muslim/Other: Muslim and Other Religions

*Other for Ethnicities: Lomwe, Tonga, Lambya/Nyiha, Yao, Ngonde, Sena, Nyanja, Ndali, and Mang'anja

Table 2. Recognition Accuracy of Clinical Vignettes

Table 2: Recognition Accuracy of Clinical Vignettes			
Mental Disorder	Recognition	N	(%)
Oppositional Defiant Disorder (ODD)	Yes	938	96.3
	No	36	3.7
Separation Anxiety Disorder (SAD)	Yes	863	88.6
	No	111	11.4



Table 3: Associations of Recognition Accuracy of Oppositional Defiant Disorder (ODD) with Socio-Demographic Variables and Other Personal Information

Variable		OR	SE	[95% conf. interval]		P> t
Sex	Female	Ref				
	Male	1.04	0.58	0.34	3.13	0.95
Age	18-25	Ref				
	26-35	0.87	0.62	0.21	3.55	0.84
	36-45	0.96	0.93	0.14	6.41	0.96
	46-55	0.53	0.57	0.06	4.42	0.55
	56+	0.63	0.91	0.04	10.72	0.75
Region	Lilongwe	Ref				
	Mzimba	1.02	0.52	0.38	2.74	0.97
Religion	Pentecostal/African Independent	Ref				
	Roman Catholic	0.88	0.47	0.31	2.51	0.81
	Protestant	1.10	0.55	0.41	2.94	0.85
	Muslim/Other	1.75	1.09	0.52	5.95	0.37
Education	JCE-MSCE	Ref				
	Teaching Certificate	2.20	1.43	0.61	7.85	0.23
	Diploma/Degree	8.56	10.58	0.76	96.47	0.08
Ethnicity	Chewa	Ref				
	Tumbuka	1.08	0.57	0.39	3.01	0.89
	Ngoni	1.68	1.16	0.43	6.48	0.46
	Other	1.48	0.76	0.54	4.03	0.44
Position	Teacher	Ref				
	Student Teacher/Teacher in Training	0.07	0.09	0.01	0.85	0.04
Public	Government/Public	Ref				
	Private	1.21	1.28	0.15	9.61	0.86
Standard	0	Ref				
	1	0.62	1.07	0.02	18.25	0.78
	2	0.09	0.14	0.01	1.71	0.11
	3	0.07	0.10	0.00	1.17	0.06
	4	0.20	0.30	0.01	3.51	0.27
	5	0.17	0.25	0.01	3.03	0.23
	6	0.41	0.60	0.02	7.32	0.54
	7-8	0.14	0.20	0.01	2.21	0.16
Class Size	0 students	Ref				
	Less than 50 students	1.05	1.41	0.08	14.59	0.97

	More or equal to 51-70 students	1.03	1.48	0.06	17.47	0.99
	More or equal to 71-90 students	0.86	1.25	0.05	14.75	0.92
	More or equal to 91-110 students	2.06	3.20	0.10	43.45	0.64
	More than 110 students	1.11	1.64	0.06	20.17	0.94
Experience						
	0-5 years	Ref				
	6-10 years	1.14	0.95	0.22	5.86	0.87
	11-20 years	0.52	0.49	0.08	3.26	0.48
	21+ years	1.04	1.15	0.12	9.00	0.97
Know anybody with mental illness						
	No	Ref				
	Yes	3.84	1.75	1.58	9.37	0.00
Taught students with mental illness						
	No	Ref				
	Yes	0.99	0.48	0.38	2.57	0.99
Taken Mental Health Training and Education						
	No	Ref				
	Yes	1.04	0.52	0.38	2.80	0.95
School Counsellor at your school						
	No	Ref				
	Yes	0.81	0.34	0.36	1.82	0.62
Interested in MH training/education?						
	No	Ref				
	Yes	6.28	3.46	2.13	18.50	0.00

Table 4: Associations of Recognition Accuracy of Separation Anxiety Disorder (SAD) with Socio-Demographic Variables and Other Personal Information

Variable		OR	SE	[95% conf. interval]		P> z
Sex	Female	Ref				
	Male	1.09	0.35	0.58	2.04	0.80
Age	18-25	Ref				
	26-35	0.61	0.26	0.27	1.39	0.24
	36-45	0.77	0.42	0.26	2.23	0.63
	46-55	0.17	0.11	0.05	0.58	0.00
	56+	0.49	0.47	0.07	3.25	0.46
Region	Lilongwe	Ref				
	Mzimba	0.67	0.19	0.38	1.18	0.16
Religion	Pentecostal/African Independent	Ref				
	Roman Catholic	1.32	0.42	0.71	2.47	0.38
	Protestant	1.36	0.38	0.79	2.34	0.27
	Muslim/Other	1.58	0.52	0.83	3.00	0.16
Education	JCE-MSCE	Ref				
	Teaching Certificate	1.40	0.61	0.60	3.30	0.44
	Diploma/Degree	1.90	1.16	0.57	6.30	0.29
Ethnicity	Chewa	Ref				
	Tumbuka	0.77	0.24	0.42	1.42	0.40
	Ngoni	0.89	0.32	0.44	1.80	0.75
	Other	1.10	0.33	0.60	1.99	0.76
Position	Teacher	Ref				
	Student Teacher/Teacher in Training	0.23	0.19	0.05	1.15	0.07
Public	Government/Public	Ref				
	Private	0.86	0.55	0.24	3.01	0.81
Standard	0	Ref				
	1	0.48	0.51	0.06	3.82	0.49
	2	0.73	0.78	0.09	5.89	0.76
	3	0.49	0.52	0.06	3.88	0.50
	4	0.77	0.80	0.10	5.92	0.81
	5	0.50	0.52	0.07	3.79	0.50
	6	1.03	1.09	0.13	8.22	0.98
	7-8	0.80	0.83	0.10	6.10	0.83
Class Size	0 students	Ref				
	Less than 50 students	2.12	2.17	0.29	15.80	0.46

More or equal to 51-70 students	0.93	0.96	0.12	7.04	0.95
More or equal to 71-90 students	1.12	0.12	0.15	8.63	0.91
More or equal to 91-110 students	1.73	1.87	0.21	14.33	0.61
More than 110 students	1.27	1.35	0.16	10.12	0.82
Experience					
0-5 years	Ref				
6-10 years	0.97	0.40	0.44	2.17	0.95
11-20 years	1.92	1.01	0.68	5.40	0.22
21+ years	4.08	2.56	1.19	13.98	0.03
Know anybody with mental illness					
No	Ref				
Yes	0.84	0.25	0.46	1.52	0.57
Taught students with mental illness					
No	Ref				
Yes	1.44	0.40	0.84	2.47	0.19
Taken Mental Health training and Education					
No	Ref				
Yes	1.65	0.51	0.90	3.02	0.11
School Counsellor at your school					
No	Ref				
Yes	0.86	0.20	0.55	1.36	0.52
Interested in MH training/education?					
No	Ref				
Yes	1.62	0.71	0.69	3.82	0.27

Table 5: Level of Concern of Clinical Vignettes

Mental Disorder	Level of Concern	N	(%)
Oppositional Defiant Disorder (ODD)	Very Unconcerned	70	7.2
	Unconcerned	16	1.6
	Neutral	21	2.2
	Concerned	322	33.1
	Extremely Concerned	539	55.3
Separation Anxiety Disorder (SAD)	Very Unconcerned	73	7.5
	Unconcerned	14	1.4
	Neutral	65	6.7
	Concerned	598	61.4
	Extremely Concerned	216	22.2

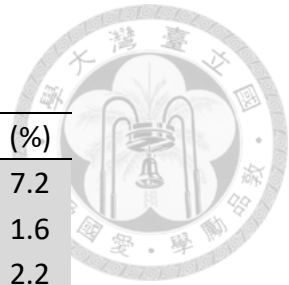


Table 6. Teacher's Perceptions of Children's Mental Health Problems (CMHP)

	Teachers' Perceptions of CMHP Severity		Mean	SD
	Severe CMHP (%)	Less Severe CMHP (%)		
Internalizing CMHPS				
Emotional Problems	426(43.74)	547(56.16)	16.0	4.78
Peer-Relation Problems	462(47.43)	511(52.46)	11.5	4.40
Externalizing CMHPS				
Conduct Problems	490(50.31)	480(49.28)	13.7	4.48
Hyperactive Problems	403(41.38)	567(58.21)	15.3	7.06
Pro-social Deficit Problems	461(47.33)	511(52.46)	15.5	5.14
Learning Problems	517(53.08)	455(46.71)	11.8	3.94
Other Problems	507(52.05)	461(47.33)	27.8	9.13



Table 7: Linear regression analysis of Primary Teacher's Perception of Severity of Students' Emotional Problems

Variable		β	SE	[95% conf. interval]		P> t
Sex	Female	Ref				
	Male	-0.05	0.10	-0.25	0.15	0.63
Age	18-25	Ref				
	26-35	-0.14	0.15	-0.44	0.17	0.38
	36-45	-0.11	0.18	-0.46	0.25	0.55
	46-55	-0.17	0.21	-0.58	0.25	0.43
	56+	-0.22	0.27	-0.75	0.31	0.41
Region	Lilongwe	Ref				
	Mzimba	-0.08	0.09	-0.25	0.08	0.33
Religion	Pentecostal/African Independent	Ref				
	Roman Catholic	-0.04	0.10	-0.25	0.17	0.71
	Protestant	-0.05	0.09	-0.22	0.13	0.61
	Muslim/Other	0.02	0.10	-0.18	0.22	0.85
Education	JCE-MSCE	Ref				
	Teaching Certificate	0.00	0.14	-0.27	0.26	0.98
	Diploma/Degree	-0.08	0.18	-0.44	0.28	0.65
Ethnicity	Chewa	Ref				
	Tumbuka	0.25	0.10	0.06	0.44	0.01
	Ngoni	0.24	0.11	0.02	0.46	0.03



Position	Other	0.12	0.09	-0.06	0.29	0.20
	Teacher	Ref				
Public	Student Teacher/Teacher in Training	0.15	0.33	-0.50	0.79	0.65
	Government/Public	Ref				
Standard	Private	-0.07	0.18	-0.43	0.28	0.68
	0	Ref				
	1	-0.07	0.39	-0.83	0.69	0.86
	2	0.05	0.39	-0.71	0.81	0.90
	3	-0.22	0.39	-0.97	0.54	0.58
	4	-0.05	0.38	-0.79	0.70	0.91
	5	0.02	0.38	-0.73	0.77	0.96
	6	0.08	0.38	-0.67	0.83	0.84
	7-8	-0.05	0.38	-0.80	0.69	0.89
Class Size	0 students	Ref				
	Less than 50 students	0.06	0.35	-0.63	0.76	0.86
	More or equal to 51-70 students	0.08	0.36	-0.63	0.80	0.82
	More or equal to 71-90 students	-0.03	0.37	-0.74	0.69	0.94
	More or equal to 91-110 students	-0.04	0.37	-0.77	0.68	0.91
	More than 110 students	0.03	0.37	-0.69	0.76	0.93
Experience	0-5 years	Ref				
	6-10 years	0.09	0.13	-0.16	0.34	0.49
	11-20 years	0.04	0.15	-0.25	0.34	0.77
	21+ years	0.22	0.19	-0.15	0.59	0.25



Know anybody with mental illness						
No	Ref					
Yes	-0.05	0.10	-0.14	0.24	0.63	
Taught students with mental illness						
No	Ref					
Yes	-0.11	0.09	-0.06	0.29	0.21	
Taken Mental Health Training and Education						
No	Ref					
Yes	-0.03	0.08	-0.13	0.19	0.71	
School Counsellor at your school						
No	Ref					
Yes	-0.03	0.07	-0.10	0.17	0.63	
Interested in MH training/education?						
No	Ref					
Yes	-0.35	0.15	-0.64	-0.05	0.02	



Table 8. Linear regression analysis of Primary Teacher's Perception of Severity of Students' Peer-Relationship Problems

Variable		β	SE	[95% conf. interval]		P> t
Sex	Female	Ref				
	Male	-0.22	0.10	-0.42	-0.01	0.04
Age	18-25	Ref				
	26-35	-0.12	0.15	-0.42	0.18	0.44
	36-45	-0.09	0.18	-0.44	0.27	0.63
	46-55	-0.06	0.21	-0.47	0.36	0.79
	56+	-0.21	0.27	-0.74	0.32	0.44
Region	Lilongwe	Ref				
	Mzimba	0.04	0.09	-0.13	0.21	0.63
Religion	Pentecostal/African Independent	Ref				
	Roman Catholic	-0.04	0.11	-0.24	0.17	0.74
	Protestant	-0.01	0.09	-0.19	0.17	0.94
	Muslim/Other	0.02	0.10	-0.18	0.22	0.87
Education	JCE-MSCE	Ref				
	Teaching Certificate	-0.05	0.14	-0.31	0.22	0.73
	Diploma/Degree	-0.04	0.18	-0.40	0.32	0.83
Ethnicity	Chewa	Ref				
	Tumbuka	0.17	0.10	-0.02	0.36	0.08
	Ngoni	0.18	0.11	-0.04	0.41	0.11
	Other	0.13	0.09	-0.05	0.31	0.15



Position		Ref				
Teacher		Ref				
Student Teacher/Teacher in Training		0.31	0.33	-0.33	0.96	0.34
Public						
Government/Public		Ref				
Private		0.00	0.18	-0.36	0.36	0.99
Standard						
0		Ref				
1		0.06	0.39	-0.71	0.83	0.88
2		0.10	0.39	-0.66	0.87	0.79
3		-0.06	0.39	-0.82	0.70	0.88
4		0.12	0.38	-0.63	0.87	0.75
5		-0.02	0.38	-0.77	0.73	0.96
6		0.08	0.38	-0.67	0.84	0.83
7-8		0.04	0.38	-0.71	0.79	0.91
Class Size						
0 students		Ref				
Less than 50 students		-0.01	0.36	-0.71	0.69	0.97
More or equal to 51-70 students		0.02	0.37	-0.70	0.74	0.96
More or equal to 71-90 students		0.02	0.37	-0.70	0.74	0.97
More or equal to 91-110 students		-0.05	0.37	-0.79	0.68	0.89
More than 110 students		-0.05	0.37	-0.78	0.68	0.89
Experience						
0-5 years		Ref				
6-10 years		0.10	0.13	-0.15	0.35	0.44
11-20 years		0.00	0.15	-0.30	0.29	0.99

21+ years	0.10	0.19	-0.28	0.47	0.62
Know anybody with mental illness					
No	Ref				
Yes	-0.11	0.10	-0.30	0.08	0.27
Taught students with mental illness					
No	Ref				
Yes	0.06	0.09	-0.12	0.24	0.54
Taken Mental Health Training and Education					
No	Ref				
Yes	0.00	0.08	-0.17	0.16	0.97
School Counsellor at your school					
No	Ref				
Yes	0.01	0.07	-0.13	0.15	0.88
Interested in MH training/education?					
No	Ref				
Yes	-0.38	0.15	-0.68	-0.09	0.01





Table 9. Linear regression analysis of Primary Teacher's Perception of Severity of Students' Conduct Problems

Variable		β	SE	[95% conf. interval]		P> t
Sex	Female	Ref				
	Male	0.00	0.10	-0.20	0.21	0.98
Age	18-25	Ref				
	26-35	-0.14	0.15	-0.44	0.16	0.36
	36-45	-0.28	0.18	-0.63	0.08	0.13
	46-55	-0.32	0.21	-0.74	0.09	0.13
	56+	-0.23	0.27	-0.76	0.30	0.39
Region	Lilongwe	Ref				
	Mzimba	-0.05	0.09	-0.22	0.12	0.55
Religion	Pentecostal/African Independent	Ref				
	Roman Catholic	-0.03	0.10	-0.23	0.18	0.79
	Protestant	-0.07	0.09	-0.25	0.10	0.41
	Muslim/Other	0.08	0.10	-0.12	0.28	0.42
Education	JCE-MSCE	Ref				
	Teaching Certificate	-0.01	0.14	-0.28	0.25	0.919
	Diploma/Degree	0.28	0.18	-0.07	0.64	0.120
Ethnicity	Chewa	Ref				
	Tumbuka	0.14	0.10	-0.05	0.32	0.16
	Ngoni	0.10	0.11	-0.12	0.32	0.37
	Other	0.13	0.09	-0.04	0.31	0.14



Position		Teacher	Ref				
		Student Teacher/Teacher in Training	0.40	0.33	-0.24	1.04	0.22
Public		Government/Public	Ref				
		Private	0.02	0.18	-0.33	0.38	0.89
Standard		0	Ref				
		1	0.61	0.39	-0.16	1.37	0.12
		2	0.35	0.39	-0.41	1.10	0.37
		3	0.28	0.38	-0.47	1.04	0.46
		4	0.55	0.38	-0.19	1.30	0.15
		5	0.36	0.38	-0.39	1.10	0.35
		6	0.36	0.38	-0.39	1.11	0.35
		7-8	0.47	0.38	-0.28	1.22	0.22
Class Size		0 students	Ref				
		Less than 50 students	-0.06	0.35	-0.76	0.63	0.86
		More or equal to 51-70 students	0.02	0.36	-0.69	0.73	0.96
		More or equal to 71-90 students	-0.13	0.36	-0.85	0.58	0.71
		More or equal to 91-110 students	-0.22	0.37	-0.95	0.50	0.54
		More than 110 students	-0.20	0.37	-0.92	0.52	0.59
Experience		0-5 years	Ref				
		6-10 years	0.19	0.13	-0.06	0.44	0.14
		11-20 years	0.07	0.15	-0.22	0.36	0.63
		21+ years	0.30	0.19	-0.07	0.67	0.11
Know anybody with mental illness		No	Ref				

	Yes	-0.18	0.10	-0.37	0.01	0.06
Taught students with mental illness						
	No	Ref				
	Yes	0.18	0.09	0.00	0.35	0.05
Taken Mental Health Training and Education						
	No	Ref				
	Yes	0.01	0.08	-0.16	0.17	0.94
School Counsellor at your school						
	No	Ref				
	Yes	-0.12	0.07	-0.26	0.02	0.09
Interested in MH training/education?						
	No	Ref				
	Yes	0.14	0.15	-0.16	0.43	0.36





Table 10: Linear regression analysis of Primary Teacher's Perception of Severity of Students' Hyperactive Problems

Variable		β	SE	[95% conf. interval]	P> t
Sex	Female	Ref			
	Male	0.05	0.11	-0.16 0.26	0.64
Age	18-25	Ref			
	26-35	-0.15	0.16	-0.46 0.16	0.35
	36-45	-0.12	0.19	-0.48 0.24	0.52
	46-55	0.16	0.22	0.58 0.26	0.46
	56+	-0.19	0.28	-0.73 0.35	0.48
Region	Lilongwe	Ref			
	Mzimba	-0.03	0.09	-0.20 0.14	0.72
Religion	Pentecostal/African Independent	Ref			
	Roman Catholic	-0.10	0.11	-0.31 0.11	0.36
	Protestant	-0.03	0.09	-0.22 0.15	0.71
	Muslim/Other	-0.07	0.10	-0.28 0.13	0.48
Education	JCE-MSCE	Ref			
	Teaching Certificate	-0.02	0.14	-0.29 0.25	0.88
	Diploma/Degree	0.10	0.19	-0.26 0.47	0.58
Ethnicity	Chewa	Ref			
	Tumbuka	0.18	0.10	-0.02 0.37	0.07
	Ngoni	0.09	0.12	-0.14 0.31	0.46
	Other	0.13	0.09	-0.05 0.31	0.16



Position		Ref				
	Teacher					
	Student Teacher/Teacher in Training	0.09	0.34	-0.57	0.75	0.79
Public						
	Government/Public					
	Private	-0.18	0.19	-0.54	0.19	0.34
Standard						
	0	Ref				
	1	0.34	0.40	-0.44	1.12	0.40
	2	0.15	0.40	-0.62	0.93	0.70
	3	0.23	0.40	-0.54	1.01	0.56
	4	0.15	0.39	-0.62	0.92	0.70
	5	0.10	0.39	-0.66	0.87	0.79
	6	0.17	0.39	-0.60	0.94	0.66
	7-8	0.28	0.39	-0.48	1.05	0.47
Class Size						
	0 students	Ref				
	Less than 50 students	-0.15	0.36	-0.86	0.56	0.68
	More or equal to 51-70 students	-0.09	0.37	-0.82	0.64	0.81
	More or equal to 71-90 students	-0.23	0.37	-0.96	0.51	0.54
	More or equal to 91-110 students	-0.11	0.38	-0.86	0.64	0.77
	More than 110 students	-0.18	0.38	-0.92	0.56	0.63
Experience						
	0-5 years	Ref				
	6-10 years	0.06	0.13	-0.19	0.32	0.62
	11-20 years	0.10	0.15	-0.20	0.40	0.53

21+ years	0.20	0.19	-0.18	0.58	0.29
Know anybody with mental illness					
No	Ref				
Yes	-0.20	0.10	-0.39	0.00	0.05
Taught students with mental illness					
No	Ref				
Yes	0.18	0.09	0.00	0.36	0.06
Taken Mental Health Training and Education					
No	Ref				
Yes	-0.01	0.08	-0.17	0.16	0.93
School Counsellor at your school					
No	Ref				
Yes	-0.04	0.07	-0.19	0.10	0.54
Interested in MH training/education?					
No	Ref				
Yes	0.11	0.15	-0.19	0.41	0.49





Table 11: Linear regression analysis of Primary Teacher's Perception of Severity of Students' Pro-Social Problems

Variable		β	SE	[95% conf. interval]		P> t
Sex	Female	Ref				
	Male	-0.19	0.09	-0.37	-0.02	0.03
Age	18-25	Ref				
	26-35	-0.20	0.13	-0.46	0.07	0.14
	36-45	-0.27	0.16	-0.58	0.04	0.09
	46-55	-0.23	0.18	-0.59	0.13	0.21
	56+	-0.01	0.23	-0.47	0.45	0.97
Region	Lilongwe	Ref				
	Mzimba	0.06	0.07	-0.08	0.21	0.39
Religion	Pentecostal/African Independent	Ref				
	Roman Catholic	-0.03	0.09	-0.21	0.15	0.76
	Protestant	0.01	0.08	-0.14	0.16	0.91
	Muslim/Other	0.03	0.09	-0.15	0.20	0.77
Education	JCE-MSCE	Ref				
	Teaching Certificate	-0.13	0.12	-0.36	0.10	0.26
	Diploma/Degree	-0.04	0.16	-0.35	0.27	0.82
Ethnicity	Chewa	Ref				
	Tumbuka	0.14	0.08	-0.02	0.31	0.09
	Ngoni	0.09	0.10	-0.11	0.28	0.38
	Other	0.09	0.08	-0.06	0.24	0.25



Position		Ref				
	Teacher					
	Student Teacher/Teacher in Training	0.33	0.28	-0.23	0.89	0.25
Public						
	Government/Public	Ref				
	Private	0.10	0.16	-0.21	0.41	0.52
Standard						
	0	Ref				
	1	0.33	0.34	-0.34	0.99	0.33
	2	0.39	0.34	-0.27	1.05	0.24
	3	0.14	0.33	-0.52	0.79	0.68
	4	0.40	0.33	-0.25	1.05	0.23
	5	0.16	0.33	-0.49	0.81	0.64
	6	0.23	0.33	-0.42	0.89	0.48
	7-8	0.31	0.33	-0.34	0.96	0.35
Class Size						
	0 students	Ref				
	Less than 50 students	-0.23	0.31	-0.83	0.37	0.45
	More or equal to 51-70 students	-0.22	0.32	-0.84	0.40	0.49
	More or equal to 71-90 students	-0.26	0.32	-0.88	0.36	0.41
	More or equal to 91-110 students	-0.27	0.32	-0.90	0.36	0.40
	More than 110 students	-0.20	0.32	-0.83	0.42	0.53
Experience						
	0-5 years	Ref				
	6-10 years	0.04	0.11	-0.17	0.26	0.70
	11-20 years	-0.02	0.13	-0.27	0.23	0.88



21+ years	0.10	0.16	-0.22	0.42	0.54
Know anybody with mental illness					
No	Ref				
Yes	-0.15	0.08	-0.31	0.02	0.08
Taught students with mental illness					
No	Ref				
Yes	0.04	0.08	-0.11	0.20	0.60
Taken Mental Health Training and Education					
No	Ref				
Yes	0.03	0.07	-0.11	0.17	0.64
School Counsellor at your school					
No	Ref				
Yes	0.01	0.06	-0.11	0.13	0.92
Interested in MH training/education?					
No	Ref				
Yes	0.09	0.13	-0.17	0.34	0.51

Table 12: Linear regression analysis of Primary Teacher's Perception of Severity of Students' Learning Problems

Variable		β	SE	[95% conf. interval]	P> t
Sex					
	Female	Ref			
	Male	-0.09	0.10	-0.29 0.11	0.38
Age					
	18-25	Ref			
	26-35	-0.08	0.15	-0.37 0.22	0.61



	36-45	-0.07	0.18	-0.42	0.27	0.67
	46-55	-0.10	0.20	-0.50	0.30	0.63
	56+	-0.31	0.26	-0.82	0.20	0.23
Region	Lilongwe	Ref				
	Mzimba	-0.13	0.08	-0.30	0.03	0.11
Religion	Pentecostal/African Independent Protestant	Ref				
	Roman Catholic	-0.08	0.10	-0.27	0.12	0.46
	Muslim/Other	0.01	0.09	-0.16	0.18	0.93
		-0.11	0.10	-0.30	0.09	0.28
Education	JCE-MSCE	Ref				
	Teaching Certificate	-0.19	0.13	-0.45	0.07	0.15
	Diploma/Degree	-0.15	0.18	-0.50	0.20	0.40
Ethnicity	Chewa	Ref				
	Tumbuka	0.14	0.09	-0.04	0.33	0.13
	Ngoni	0.23	0.11	0.02	0.45	0.03
	Other	0.20	0.09	0.03	0.38	0.02
Position	Teacher	Ref				
	Student Teacher/Teacher in Training	-0.26	0.32	-0.89	0.37	0.42
Public	Government/Public	Ref				
	Private	-0.31	0.18	-0.66	0.03	0.07
Standard	0	Ref				
	1	0.47	0.39	-0.28	1.23	0.22



	2	0.30	0.38	-0.46	1.05	0.44
	3	0.20	0.38	-0.56	0.95	0.61
	4	0.46	0.38	-0.29	1.20	0.23
	5	0.35	0.38	-0.39	1.10	0.35
	6	0.49	0.38	-0.25	1.24	0.19
	7-8	0.29	0.38	-0.45	1.04	0.44
Class Size						
	0 students	Ref				
	Less than 50 students	-0.19	0.36	-0.91	0.52	0.60
	More or equal to 51-70 students	-0.33	0.37	-1.06	0.40	0.37
	More or equal to 71-90 students	-0.28	0.37	-1.01	0.45	0.46
	More or equal to 91-110 students	-0.23	0.38	-0.97	0.51	0.55
	More than 110 students	-0.25	0.37	-0.98	0.49	0.51
Experience						
	0-5 years	Ref				
	6-10 years	0.06	0.12	-0.12	0.31	0.61
	11-20 years	0.00	0.14	-0.29	0.28	0.98
	21+ years	0.19	0.18	-0.17	0.55	0.31
Know anybody with mental illness						
	No	Ref				
	Yes	0.07	0.09	-0.11	0.26	0.44
Taught students with mental illness						
	No	Ref				
	Yes	-0.01	0.09	-0.19	0.16	0.90
Taken Mental Health training and Education						
	No	Ref				
	Yes	0.11	0.08	-0.05	0.26	0.19
School Counsellor at your school						
	No	Ref				
	Yes	-0.02	0.07	-0.16	0.11	0.74

Interested in MH training/education?

No

Ref

Yes

0.09

0.15

-0.20

0.38

0.54





Table 13: Linear regression analysis of Primary Teacher's Perception of Severity of Students' Other Problems

Variable		β	SE	[95% conf.	c	P> t
Sex	Female	Ref				
	Male	-0.11	0.10	-0.32	0.09	0.29
Age	18-25	Ref				
	26-35	0.25	0.16	-0.06	0.56	0.11
	36-45	0.19	0.18	-0.17	0.55	0.31
	46-55	0.18	0.21	-0.24	0.60	0.40
	56+	0.01	0.27	-0.52	0.54	0.96
Region	Lilongwe	Ref				
	Mzimba	-0.02	0.09	-0.19	0.15	0.81
Religion	Pentecostal/African Independent	Ref				
	Roman Catholic	-0.07	0.11	-0.28	0.13	0.49
	Protestant	-0.03	0.09	-0.21	0.14	0.71
	Muslim/Other	-0.01	0.10	-0.21	0.19	0.90
Education	JCE-MSCE	Ref				
	Teaching Certificate	0.00	0.14	-0.26	0.27	0.98
	Diploma/Degree	0.04	0.18	-0.32	0.40	0.81
Ethnicity	Chewa	Ref				
	Tumbuka	0.24	0.10	0.05	0.43	0.01
	Ngoni	0.13	0.11	-0.09	0.35	0.26
	Other	0.07	0.09	-0.11	0.25	0.42



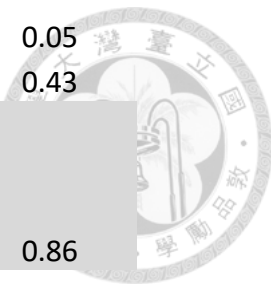
Position		Ref				
Teacher						
Student Teacher/Teacher in Training		0.36	0.33	-0.29	1.01	0.28
Public		Ref				
Government/Public						
Private		0.00	0.18	-0.36	0.36	1.00
Standard		Ref				
0						
1		0.33	0.39	-0.43	1.10	0.39
2		0.37	0.39	-0.40	1.13	0.35
3		0.23	0.39	-0.53	0.99	0.55
4		0.31	0.38	-0.44	1.06	0.42
5		0.35	0.38	-0.40	1.10	0.36
6		0.27	0.38	-0.48	1.03	0.48
7-8		0.28	0.38	-0.47	1.04	0.46
Class Size		Ref				
0 students						
Less than 50 students		-0.30	0.36	-1.00	0.40	0.40
More or equal to 51-70 students		-0.27	0.37	-0.99	0.45	0.46
More or equal to 71-90 students		-0.38	0.37	-1.10	0.33	0.29
More or equal to 91-110 students		-0.44	0.37	-1.17	0.29	0.24
More than 110 students		-0.34	0.37	-1.06	0.39	0.36
Experience		Ref				
0-5 years						
6-10 years		0.12	0.13	-0.13	0.37	0.36
11-20 years		0.00	0.15	-0.29	0.30	0.99

21+ years	0.22	0.19	-0.16	0.59	0.26
Know anybody with mental illness					
No	Ref				
Yes	0.04	0.10	-0.16	0.23	0.71
Taught students with mental illness					
No	Ref				
Yes	0.21	0.09	0.03	0.39	0.03
Taken Mental Health Training and Education					
No	Ref				
Yes	0.06	0.08	-0.11	0.22	0.50
School Counsellor at your school					
No	Ref				
Yes	-0.05	0.07	-0.19	0.08	0.44
Interested in MH training/education?					
No	Ref				
Yes	-0.42	0.15	-0.72	-0.12	0.01

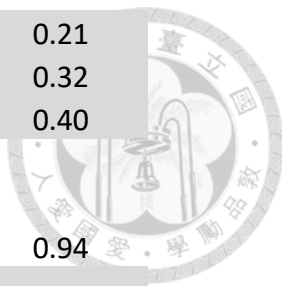


Table 14: Logistic Regression Analysis of Primary School Teachers Attributing Students' Mental Health Problems to Spiritual Causes

Variable		OR	SE	[95% conf . interval]	P> z
Sex	Female	Ref			
	Male	0.79	0.17	0.51 1.21	0.27
Age	18-25	Ref			
	26-35	0.70	0.23	0.37 1.35	0.29
	36-45	0.74	0.28	0.35 1.56	0.43
	46-55	0.63	0.28	0.26 1.49	0.29
	56+	1.14	0.64	0.38 3.45	0.81
Region	Lilongwe	Ref			
	Mzimba	1.38	0.24	0.98 1.94	0.07
Religion	Pentecostal/African Independent	Ref			
	Roman Catholic	0.60	0.13	0.39 0.91	0.02
	Protestant	0.93	0.17	0.65 1.33	0.69
	Muslim/Other	0.62	0.13	0.41 0.94	0.02
Education	JCE-MSCE	Ref			
	Teaching Certificate	0.94	0.26	0.54 1.62	0.81
	Diploma/Degree	0.81	0.30	0.38 1.69	0.57
Ethnicity	Chewa	Ref			
	Tumbuka	1.02	0.20	0.69 1.51	0.92



	Ngoni	0.63	0.15	0.39	1.00	0.05
	Other	0.86	0.16	0.60	1.24	0.43
Position	Teacher	Ref				
	Student Teacher/Teacher in Training	0.88	0.60	0.23	3.37	0.86
Public	Government/Public	Ref				
	Private	0.42	0.16	0.20	0.89	0.02
Standard	0	Ref				
	1	2.92	2.45	0.56	15.15	0.20
	2	2.81	2.35	0.55	14.48	0.22
	3	3.99	3.33	0.78	20.49	0.10
	4	2.16	1.79	0.43	10.94	0.35
	5	3.60	2.97	0.71	18.18	0.12
	6	3.52	2.91	0.69	17.80	0.13
	7-8	2.70	2.23	0.54	13.61	0.23
Class Size	0 students	Ref				
	Less than 50 students	0.64	0.53	0.12	3.25	0.59
	More or equal to 51-70 students	0.37	0.32	0.07	1.98	0.25
	More or equal to 71-90 students	0.40	0.34	0.08	2.12	0.28
	More or equal to 91-110 students	0.26	0.22	0.05	1.40	0.12
	More than 110 students	0.41	0.35	0.08	2.20	0.30
Experience	0-5 years	Ref				



6-10 years	1.39	0.37	0.83	2.33	0.21
11-20 years	1.36	0.42	0.74	2.48	0.32
21+ years	1.39	0.54	0.65	2.99	0.40
Know anybody with mental illness					
No	Ref				
Yes	0.99	0.20	0.66	1.47	0.94
Taught students with mental illness					
No	Ref				
Yes	1.53	0.29	1.05	2.21	0.03
Taken MH training					
No	Ref				
Yes	0.81	0.14	0.58	1.13	0.21
School Counsellor at your school					
No	Ref				
Yes	0.93	0.13	0.70	1.23	0.59
Interested in MH training/education?					
No	Ref				
Yes	1.20	0.37	0.65	2.20	0.56

Table 15: Teachers' Rating of Availability and Importance of School-Based Mental Health Services

Mental Health Service	Availability (%)	Important (%)	Perceived importance		
			Somewhat Important (%)	Somewhat Unimportant (%)	Not Important (%)
School Wide Bullying Prevention Program	335 (34.4)	735 (75.5)	184 (18.9)	12(1.2)	37(3.8)
School-Wide Screening of Mental Health Problems in Students	228 (29.6)	731(75.1)	183 (18.8)	27(2.77)	25(2.57)
Clinical Referral of Students with Mental Health Problems	355 (36.5)	759(77.9)	161(16.5)	25(2.6)	21(2.2)
Student Counselling Services	683 (70.1)	786(80.7)	165(16.9)	9(0.9)	7(0.7)
Teachers Training about Identifying Students with Mental Problems	515 (52.9)	789(81.01)	137(14.1)	29(3.0)	11(1.1)
Mental Health Support for Teachers	392 (40.3)	787(80.8)	129(13.2)	25(2.6)	18(1.9)

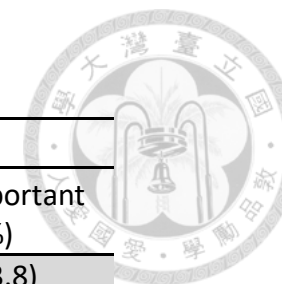




Table 16: Logistic Regression Analysis of Primary School Teachers Preferring to Refer Students with Mental Health Problems to Non-Medical Providers

Variable		OR	SE	[95% conf. interval]	P> z
Sex	Female	Ref			
	Male	0.85	0.19	0.54 1.33	0.47
Age	18-25	Ref			
	26-35	1.40	0.47	0.72 2.71	0.32
	36-45	2.23	0.88	1.03 4.83	0.04
	46-55	1.45	0.67	0.58 3.59	0.43
	56+	2.46	1.42	0.80 7.64	0.12
Region	Lilongwe	Ref			
	Mzimba	0.76	0.14	0.53 1.10	0.15
Religion	Pentecostal/African Independent	Ref			
	Roman Catholic	0.57	0.13	0.36 0.89	0.01
	Protestant	0.83	0.16	0.57 1.21	0.32
	Muslim/Other	0.88	0.19	0.58 1.35	0.57
Education	JCE-MSCE	Ref			
	Teaching Certificate	0.81	0.24	0.46 1.44	0.47
	Diploma/Degree	0.67	0.27	0.30 1.46	0.31
Ethnicity					



	Chewa	Ref				
	Tumbuka	0.86	0.18	0.57	1.29	0.46
	Ngoni	0.64	0.16	0.39	1.04	0.07
	Other	0.88	0.17	0.60	1.28	0.50
Position	Teacher	Ref				
	Student Teacher/Teacher in Training	0.61	0.53	0.11	3.36	0.57
Public	Government/Public	Ref				
	Private	1.09	0.45	0.49	2.43	0.83
Standard	0	Ref				
	1	4.76	5.53	0.49	46.41	0.18
	2	5.42	6.29	0.56	52.70	0.15
	3	5.69	6.59	0.59	55.09	0.13
	4	3.65	4.19	0.38	34.71	0.26
	5	4.80	5.54	0.50	46.03	0.17
	6	7.34	8.44	0.77	69.94	0.08
	7-8	4.71	5.42	0.50	44.84	0.18
Class Size	0 students	Ref				
	Less than 50 students	0.07	0.09	0.01	0.85	0.04
	More or equal to 51-70 students	0.07	0.09	0.01	0.82	0.03
	More or equal to 71-90 students	0.12	0.15	0.01	1.40	0.09



	More or equal to 91-110 students	0.06	0.08	0.00	0.72	0.03
	More than 110 students	0.10	0.13	0.01	1.21	0.07
Experience						
	0-5 years	Ref				
	6-10 years	0.81	0.22	0.47	1.39	0.45
	11-20 years	0.69	0.22	0.37	1.30	0.26
	21+ years	0.74	0.31	0.33	1.66	0.47
Know anybody with mental illness						
	No	Ref				
	Yes	1.04	0.22	0.69	1.57	0.86
Taught students with mental illness						
	No	Ref				
	Yes	0.92	0.18	0.62	1.36	0.68
Taken Mental Health Training and Education						
	No	Ref				
	Yes	0.86	0.16	0.60	1.23	0.41
School Counsellor at your school						
	No	Ref				
	Yes	1.14	0.18	0.84	1.54	0.41
Interested in MH training/education?						
	No	Ref				
	Yes	0.79	0.25	0.42	1.48	0.46

Appendix

Item A. Categories for SDQ

Child Mental Health Categories	Symptoms of Child Mental Health Problems
Emotional Problems	Often complains of headaches, stomach-aches or sickness
	Often unhappy, depressed or tearful
	Many fears, easily scared
	Nervous in new situations, easily loses confidence
	Many worries or often seems worried
Peer-Relationship Problems	Picked on or bullied by other youth
	Would rather be alone than with other children
	Generally, not liked by other children
	Has no at least one good friend
	Gets along better with adults than with other youth
Hyperactivity Problems	Thinks things out before acting
	Restless, overactive, cannot stay still for long time
	Constantly fidgeting or squirming
	Poor attention span, not see work through to the end
	Easily distracted, concentration wanders
Conduct Problems	Quarreling and bullying other children
	Often Lies or cheats
	Often loses temper
	Generally, not well behaved, usually doesn't do what adults request
	Steals from home, school or elsewhere
Pro-social Problems	Not considerate of other people's feelings
	Not kind to younger children
	Not helpful if someone is hurt, upset or feeling ill
	Refuse to shares readily with other youth, for example books, game
	Often not offers to help others (parents, teachers, children)
Learning Problems	Spelling problem
	Mathematics problem
	Writing problem
	Reading problem
Other Problems	Uses obscene words
	Truancy from school
	Untidy in personal hygiene
	Speech and language problem
	Use substance
	Suspicious
	Day time wetting of clothes

Item B. Malawi National Committee on Research in Social Sciences and Humanities Ethics Approval



NATIONAL COMMISSION FOR SCIENCE & TECHNOLOGY

Lingadzi House
Robert Mugabe Crescent
P/Bag B303
City Centre
Lilongwe

Tel: +265 1 771 550
+265 1 774 189
+265 1 774 869
Fax: +265 1 772 431
Email: directorgeneral@ncst.mw
Website: <http://www.ncst.mw>



NATIONAL COMMITTEE ON RESEARCH IN THE SOCIAL SCIENCES AND HUMANITIES

Ref No: NCST/RTT/2/6

2nd May 2024

Ms Melisa Saji,

[REDACTED]

[REDACTED]

[REDACTED]

Email: melissasaji@gmail.com

Dear Ms Saji,

RESEARCH ETHICS AND REGULATORY APPROVAL AND PERMIT FOR PROTOCOL NO. P.04/24/864: PRIMARY SCHOOL TEACHERS ATTITUDES AND PERCEPTIONS TOWARDS STUDENTS MENTAL HEALTH PROBLEMS

Having satisfied all the relevant ethical and regulatory requirements, I am pleased to inform you that the above referred research protocol has officially been approved. You are now permitted to proceed with its implementation. Should there be any amendments to the approved protocol in the course of implementing it, you shall be required to seek approval of such amendments before implementation of the same.

This approval is valid for one year from the date of issuance of this approval. If the study goes beyond one year, an annual approval for continuation shall be required to be sought from the National Committee on Research in the Social Sciences and Humanities (NCRSH) in a format that is available at the Secretariat. Once the study is finalised, you are required to furnish the Committee and the Commission with a final report of the study. The committee reserves the right to carry out compliance

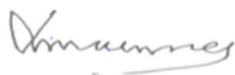
Committee Address:

Secretariat, National Committee on Research in the Social Sciences and Humanities, National Commission for Science and Technology, Lingadzi House, City Centre, P/Bag B303, Capital City, Lilongwe3, Malawi. Telephone Nos: +265 771 550/774 869; E-mail address: ncrsh@ncst.mw

inspection of this approved protocol at any time as may be deemed by it. As such, you are expected to properly maintain all study documents including consent forms.

Wishing you a successful implementation of your study.

Yours Sincerely,



Yalonda .I. Mwanza
NCRSH ADMINISTRATOR
HEALTH, SOCIAL SCIENCES AND HUMANITIES DIVISION

For: CHAIRPERSON OF NCRSH



Item C. Introduction Letter to Ministry of Education & Headteachers



SAINT JOHN OF GOD
Hospitaller Services



MELISSA SAJI

National Taiwan University, Global Health Program | (886)908940190 | melissasaji@gmail.com

May 5, 2024

Ministry of Education Manager and Headteachers

Dear Ministry of Education Managers and Headteachers

My name is Melissa Saji, a Master of Science student at National Taiwan University, affiliated with Luke International and St John of God in Malawi. I am working directly with Mr. Frank Magugula, a lecturer and clinical psychologist from St John of God and this study will be overseen by Tsung-Shu Joseph Wu from Luke International and Shu-Sen Chang, a clinical psychiatrist and lecturer at the College of Public Health in Taiwan.

I am seeking permission to conduct our study, "Primary School Teachers' Attitudes and Perceptions Toward Students' Mental Health Problems in Malawi," at the primary schools in your community. By hearing your thoughts, the study aims to explore teachers' perspectives on students' mental health and provide support in teaching students with mental illness, hopefully influence future policies, and guide interventions in the education system. This project recognizes the vital role of primary teachers in shaping mental health outcomes for Malawian children. My past experiences in Malawi have deeply influenced me, inspiring me to give back and contribute to the healthcare sector.

Your time and consideration for this project are greatly appreciated. The proposal has received approval from the National Committee on Research in the Social Sciences and Humanities (NCRSH Reference No. NO.P/04/24/864) and the National Taiwan University Research Ethics Committee (202401HM036).

Sincerely,

Melissa Saji

Item D. Lilongwe District Education Division Manager Approval

Telephone (265) 01 750 819

Communications should be addressed to:



In reply please quote No.

District Education Manager
Lilongwe Urban District
P.O. Box 192
Lilongwe

6th April, 2024

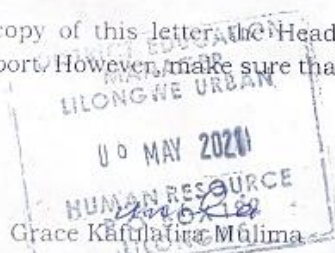


TO : Miss Melissa Saji

APPROVAL TO CONDUCT A RESEARCH

I write to inform you that permission has been granted to Miss **Melissa Saji** a National Taiwan University student, affiliated with Luke International and St John of God in Malawi to conduct a study "Primary School Teachers Attitude and Perceptions towards student, Mental Health Problems in Malawi" as partial fulfillment of her master of Clinical Psychology programme.

By copy of this letter, the Head Teachers should accord you with necessary support. However, make sure that this should not disturb normal school classes.



**CHIEF EDUCATION OFFICER
LILONGWE URBAN**

Item E. Mzimba District Education Division Manager Approval

Ref No MZC/DEM/B/1A

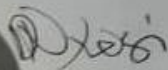
10th May, 2024

FROM: THE DISTRICT EDUCATION MANAGER, P.O. BOX 629, MZUZU.
TO : ALL HEAD TEACHERS MZUZU CITY PRIMARY SCHOOLS

LETTER OF INTRODUCTION

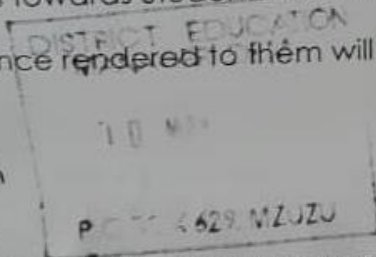
This is to certify to you that the bearer of this letter is a student at National Taiwan University affiliated with Luke International and St John of God in Malawi. He would like to conduct a study on Primary School Teacher Attitudes and Perceptions towards Students Mental Health problems in Malawi etc.

Any assistance rendered to them will be appreciated.



P.P. Nkosi

For THE DISTRICT EDUCATION MANAGER



國立臺灣大學
行為與社會科學研究倫理委員會

Research Ethics Committee
National Taiwan University
No. 1, Sec. 4, Roosevelt Rd., Taipei, Taiwan 10617, R.O.C
Phone: 3366-9956 Fax: 2362-9082
審查核可證明



核可日期：2024 年 3 月 25 日

倫委會案號：202401HM036

核可證明有效期限：2024 年 4 月 1 日起至 2025 年 3 月 30 日

計畫名稱：馬拉威小學教師對學生心理健康問題的態度和看法

校/院/系/計畫主持人：國立臺灣大學/公共衛生學院/全球衛生碩士學位學程/田楚秀 碩士生

計畫文件版本日期：【研究計畫書，2024 年 3 月 13 日】、【知情同意書，2024 年 3 月 18 日】、

【問卷，2024 年 3 月 13 日】、【招募文宣，2024 年 3 月 13 日】

上述計畫業經 2024 年 3 月 25 日 國立臺灣大學行為與社會科學研究倫理委員會同意，符合研究倫理規範。本委員會的運作符合本校行為與社會科學研究倫理準則與規範及政府相關法律規章。

本案需經研究經費補助單位核准同意後，該計畫始得執行。

計畫主持人最遲應於本核可證明到期前的 6 週，提出持續審查申請表，本案需經持續審查，方可繼續執行。在計畫執行期間，若有計畫變更或嚴重不良反應事件，計畫主持人須依國內及本校相關法令規定通報本委員會。

行為與社會科學研究倫理委員會主任委員 洪貞玲

A handwritten signature in black ink, reading '洪貞玲' (Hong Zhenling).

Ethical Review Approval
National Taiwan University

Date of approval: March 25, 2024

NTU-REC No.: 202401HM036

Validity of this approval: from April 01, 2024 to March 30, 2025

Title of protocol: Primary School Teachers' Attitudes and Perceptions Toward Students' Mental Health Problems in Malawi

University/ College/ Department/ Principal Investigator : Global Health Program / College of Public Health / National Taiwan University/ Master Student Melissa Saji

Version date of documents : 【Research Protocol, March 13, 2024】，【Informed Consent Form, March 18, 2024】，【Questionnaires, March 13, 2024】，【Recruitment Advertising, March 13, 2024】

The protocol has been approved by Research Ethics Committee of National Taiwan University and has been classified as expedited on March 25, 2024. The committee is organized under, and operates in accordance with, Social and Behavioral Research Ethical Principles and Regulations of National Taiwan University and governmental laws and regulations.

Approval by funding agency is mandatory before project implementation.

Continuing Review Application should be submitted to Research Ethics Committee no later than six weeks before current approval expired. The investigator is required to report protocol amendment and Serious Adverse Events in accordance with the National Taiwan University and governmental laws and regulations.

Chairperson Chen-Ling Hung
Research Ethics Committee

A handwritten signature in black ink, reading 'Chen-Ling Hung'.



SAINT JOHN OF GOD
Hospitaller Services



National Taiwan University

臺灣大學



LIN
Luke International



Research Participants Needed

- **Primary School Teachers and Student Teacher (Mzimba/Lilongwe District)**
- **18+ years**



My name is Melissa Saji, a Masters student in the Global Health Program at the National Taiwan University supported by St John of God and Luke International Malawi. You are invited to participate in a research study about teachers and their attitudes and perceptions on mental health. We invite those who fit the criteria to fill out the survey.

Duties

- **Completely anonymous**
- **Data is confidential**
- **15–20 min of your time**

Compensation

**Small drink or snack
will be provided**

**If you have any questions, please contact
Melissa Saji: +886 908940190 (Whatsapp)
Frank Magagula: +265 995 88 97 89**



Item H. School List of Participating Schools

Total Schools: 55 Covered in Lilongwe District and Mzimba District

Study Date	Lilongwe District (25)	Mzimba District (30)
May 27, 2024	1) Biwi Lea Primary 2) Kafulu Primary 3) St Johns Primary	26) Katoto Primary 27) Chibavi Primary 28) Viyele Primary
May 28, 2024	4) St John Primary 5) Mwenyekondo Primary 6) M'Buka Primary	29) St Augustine Primary 30) Mzuzu Foundation Primary
May 29, 2024	7) Khumula Primary 8) Mchesi Lea Primary 9) Golden Gate Memorial Private 10) Chidzingwe Primary	31) Chibanja North Primary 32) Area 1B Primary 33) Mzuzu CCAP 34) Hope Primary
May 30, 2024	11) Chiwoko Primary 12) Chisamba Primary 13) Kachere Primary 14) Kayandule Primary 15) Chimutu 1 Primary 16) Mlodza Primary	35) Mchengautuba 1 Primary
May 31, 2024	17) Lilongwe Teachers Training College 18) Lilongwe Demonstration Primary 19) Chipala Primary	36) Sonda Primary 37) Kavikale Primary 38) Jerusalem Primary
June 3, 2024	20) Dzenza Primary 21) Kalombo Primary 22) Mvungunti Primary 23) Kabwabwa Primary	39) Zolozolo Primary 40) Ching'ambo Primary 41) Chiputula Primary
June 4, 2024	24) John Lee Primary 25) Blooming Little Stars Private	
June 5, 2024		42) Nkhorongo Primary 43) Habitant Primary 44) Katawa PVT Private 45) Masasa Primary 46) Chris Academy Private
June 6, 2024		47) Kawuwa Primary 48) Geisha Primary 49) Victory Private 50) Beehive Private 51) Luyangwa Primary 53) St Peters Primary 54) Mzuzu SOS 55) Hilltop Private

Item I. Training Data Collection Sheet

Training for Data Collection for Melissa & Frank's Project For Mzuzu and Lilongwe teams: May 26-June 17 (tentative)

Daily Workflow:

1. Meet team members and proceed to the selected schools for the day.
2. Locate headteachers and primary contacts at the school.
3. Identify teacher participants.
4. Provide a brief introduction and background on the project and yourself.
5. Briefly explain how to complete the questionnaire and consent form, addressing any questions. Please hand a copy of each to them.
6. If possible, take a photo of the signed consent form and share it in the group chat for record-keeping.
7. Upon completion of the questionnaire, provide compensation. If a participant requests a revisit, compensate after receiving the completed documents.
8. Repeat steps at every school.
9. At the end of the day, we will have a scheduled call or reporting system to monitor progress on the Whatsapp group chat, where all members will be included.
 - 9.1. Ideally around 5-6PM at the end of the school work day

Important reminders:

- Please review the questionnaire survey and consent form before collecting data and direct any questions to the principal investigators during training.
- Explain that this project aims to gather genuine answers without judgment, focusing on understanding knowledge and experiences and that filling it out is voluntary and their data is confidential.
- Assure them that this is not an exam; we are only interested in their participation, so they should not worry about right or wrong answers.
- Clarify that this is not an audit or assessment of schools but an effort to comprehend current perceptions and attitudes.
- Offer clarification when needed but respond in simple terms and only if they ask, to avoid influencing their answers. Participants should receive clarification only when essential.
- Maintain a positive impression to build strong connections with participants and partners for potential future collaborations.
- For any questions or concerns during the project, feel free to contact Frank on Whatsapp, Melissa on Whatsapp: (+886)908940190, or any team member for assistance.



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August 30, 2013 Passed by the 21th Social and Behavioral Research Ethics Committee Meeting

National Taiwan University Social and Behavioral Research Ethics Committee

~ Informed Consent Form for Research Participants ~

Thank you for participating in this study! This document is called 'Informed Consent Form for Research Participants' and it will give detailed information about the study and your rights. Before the study begins and you sign this consent form, the project principal investigator or researchers will explain the study to you and answer any questions you may have.

Project Title: Primary School Teachers' Attitudes and Perceptions Toward Students' Mental Health Problems in Malawi	
Name of Research Institution: National Taiwan University	
Funding Source: None, this project is self-funded.	
Principal Investigator: Melissa Saji Tien	Title: Master of Science Student in the College of Public Health, Global Health Program
Co-Investigator: Shu-Sen Chang	Title: Professor and Director of Institute of Health Behaviour and Community Sciences, School of Public Health, National Taiwan University
Frank Magagula	Title: Lecturer at St. John of God College of Health Sciences // Clinical Psychologist at St. John of God in Mzuzu
Research project contact person: Melissa Saji Phone/Whatsapp: +886 908-940-190	
1. Research Objectives: The purpose of this study is to understand your attitudes, perceptions and mental health literacy on children with mental illness. The Ministry of Health in Malawi and the United Nations with SDG 3 has escalated the demand to promote Mental Health to drive health practices within the community in Malawi's Health Sector Strategy Plan III 2023-2030. The Ministry of Education's National Education Sector Investment Plan 2020-2030 (NESIP) has proposed methods to create more teaching colleges to help with the teacher shortage in Malawi so it is essential we incorporate mental health training. By hearing about your thoughts, it can help inform future policies and interventions and the Ministry of Health and Ministry of Education about how to support you in teaching students with mental illness and incorporating mental health training for teachers. Your answers from this survey will be analyzed to understand the association between your personal and work background in regards to your attitudes and perception on student mental health. This project is self-funded.	
2. Research Participation Criteria and Restrictions <i>Inclusion Criteria:</i> • Must be 18 years old and above • Currently primary school teacher at a school in Mzimba North District or Lilongwe District • Currently enrolled student or student teacher at the Lilongwe Teacher Training College <i>Exclusion Criteria</i> • Head teachers, substitutes, and teacher aides	
3. Research Methods and Procedures	

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A sample of 1,000 student teachers and primary school teachers from Lilongwe District and Mzimba North District will be invited to participate in this study. The ethical clearance was obtained by the National Health Science Research Committee, Lilongwe District Education Office and Mzimba North Education Office. After clearance was obtained by the various offices, along with the school phone numbers and emails, local contacts in Mzuzu and Lilongwe were used to help contact the headteachers at various primary schools in Mzimba North District and Lilongwe District. Permission was granted by the school's headteachers to come to your school to invite teachers/student teachers to participate in this study. The participants will be briefed, the consent forms will be signed and the consent form and surveys will be collected right after the participant has finished filling them out or they will be picked up later the same day as not to interfere with the teacher's class schedules. This survey will take approximately 15-20 minutes to complete.

4. Contradictions, Restrictions and Cooperation

There are no contradictions or restrictions to the participants in this study in regard to their participation in this study.

5. Potential Risks, Incidence and Countermeasures

There is minimal risk in participating in this survey. There may be a slight chance of discomfort surrounding the topics of attitudes, perceptions and mental health literacy, and if you experience any discomfort at any time you are able to decline or withdraw from taking the survey.

6. Research Benefits and Benefits for Research Participants

This study will help inform policy makers, the Ministry of Health and Ministry of Education, and teacher training colleges about attitudes, perceptions, and mental health literacy in teachers. Understanding teacher's literacy in mental health can better support students in the support, services, training, etc. that are needed to provide successful learning environments for those with mental health needs. This research can also assist with further research regarding future mental health interventions, incorporating mental health in teaching curriculum, and teacher training/workshops on preparing teachers to work with children with mental health illness. While there will be no direct benefit for you for participating in this study, a small snack and drink or soap/household item (valued at 1,500-2,000 kwacha) will be given upon completing the survey.

7. Agreement on Commercial Interests - None

8. Retention Period, Utilization Plan, and Confidentiality of Research Data

In accordance with the law, the principal investigator will maintain the confidentiality of all your personally identifiable records and private information and protect them from public disclosure. Your identity will be fully protected if the research results are published in the future. By signing this informed consent form, you are consenting to the viewing of your original records by the monitors, auditors, research ethics committee members, and the competent authorities, so as to ensure that the research procedures and data management comply with applicable laws and regulations. The aforementioned personnel pledge to maintain the confidentiality of your personal data. The paper questionnaires will be scanned and then shredded. The soft copies of the questionnaires and coded data will be saved in encrypted files stored in a laptop computer that needs a password and fingerprint ID to access so that the digitalized data can only be accessed by the PI and co-investigators. The data will be analyzed according to the research protocol and deleted on 2029/07/31, i.e., five years after the completion of the project.

9. Damage Compensation or Insurance

(1) This study will be conducted according to the research protocol. If any unforeseen reactions occur as a result of participation in this study, the university and the PI (Melissa Saji Tien, Global Health Program,

College of Public Health, National Taiwan University) are willing to provide necessary assistance such as emotional support or referral to related services.

- (2) Apart from the assistance mentioned above, no other forms of compensation will be provided for this study as this study does not inquire on personal or sensitive matters. If you are not willing to accept these terms, please do not participate.
- (3) Signing this informed consent form will not affect your legal rights in any way

10. Withdrawal from Participation

You have the right to decide whether or not you wish to participate in the research, and you may withdraw from the research and/or revoke your informed consent at any time for any reason without consequences. Withdrawal from the research will not result in animosity between the principal investigator and the participant, bias on the part of the principal investigator against the participant in the future, or the rights of the participant being compromised. If you decide to revoke your consent or withdraw from participation in this research project, you may return the survey to the lead researcher and state your withdrawal. The principal investigator will shred your survey. If deemed necessary, the principal investigator or sponsoring/supervisory unit of the research project may suspend the research project. If you have any questions or concerns or you would like to withdraw consent or exit from the study, you can contact the principal investigator of this study through email at melissasaji@gmail.com or via phone Whatsapp on + 886 908-940-190.

11. Research Participants Rights.

1. This research project has been reviewed and approved by the National Taiwan University Social and Behavioral Research Ethics Committee and the National Commission for Science and Technology, which conducted a risk-benefit assessment as well as a review of research participant care and privacy protection. The Committee operates in accordance with the applicable regulations and is a review organization audited and certified by the central competent authority. If you have any questions during the research process or believe that your rights may have been violated or infringed upon, you may directly contact the National Commission for Science and Technology at +265 1 771 550 or the National Taiwan University Social and Behavioural Research Ethics Committee at +885-2-3355-9956 or +886-2-3366-9980.
2. The principal investigator or a researcher must clearly explain the contents of this research project and other relevant information to you and inform you of all information that may affect your willingness to participate. If you have any questions, please feel free to ask any of the researchers, who will answer your questions truthfully.
3. One of the two original copies of the Consent Form that you sign will be given to you by the principal investigator for retention.

4. Research Project's Lead Researcher Signature

The lead researcher has explained in detail the nature and purpose of the above-mentioned research methods in this research plan, as well as the possible dangers and benefits.

Lead researcher signature

____/____/____
month day year

5. Study Participant's Signed Consent

I have a detailed understanding of the above research methods and their possible benefits and risks. Questions about this research plan have been explained in detail. I agree to be a voluntary research participant in this research project

Participant signature

____/____/____
month day year

Item K. Survey Questionnaire



Perceptions and Attitudes Toward Students' Mental Health in Teachers

Research ID#: _____ Date: _____

Thank you for participating in this study. Please fill out this survey to your best ability and feel free to ask any questions during the survey. This survey will ask various questions in regard to students with mental illness/disorders, which refers to a condition which causes serious disorders in the students' behavior or thinking.

Part 1: Questionnaire to Assess Socio-Demographic Characteristics and Other Personal Information

1. Age (years)? _____
2. Gender?
☐ (1) Female ☐ (2) Male ☐ (3) Other
3. Education (degree/diploma/certificate obtained)? _____
4. Religion?
☐ (1) Pentecostal/African Independent Christian ☐ (2) Roman Catholic ☐ (3) Protestant
☐ (4) Muslim ☐ (5) Atheist ☐ (6) Other: _____
5. Ethnicity?
☐ (1) Chewa ☐ (2) Lomwe ☐ (3) Yao ☐ (4) Tumbuka ☐ (5) Sena ☐ (6) Tonga
☐ (7) Ngoni ☐ (8) Ngonde ☐ (9) Lambya/Nyiha
☐ (10) Other: _____
6. Estimated yearly income? _____
7. Position?
☐ (1) Teacher ☐ (2) Student Teacher/Teacher in Training
8. Experience teaching (years)? _____
9. School Name? _____
10. Type of School?
☐ (1) Government/Public ☐ (2) Private
11. Grade level currently teaching? _____
12. Class Size?
☐ (1) <30 students ☐ (2) <31-50 students ☐ (3) <51-70 students
☐ (4) <71-90 students ☐ (5) <91-110 students ☐ (6) more than 110 students
13. Do you know anybody with a mental illness or disorder (friend, family, etc)?
☐ (1) Yes ☐ (2) No
14. Have you taught any students with a mental illness or disorder or mental health problems?
☐ (1) Yes ☐ (2) No
15. Have you taken any courses or mental health training and education?
☐ (1) Yes ☐ (2) No
16. Does your school have a counselor?
☐ (1) Yes ☐ (2) No
17. Are you interested in taking mental health training and education?
☐ (1) Yes ☐ (2) No



Perceptions and Attitudes Toward Students' Mental Health in Teachers

Research ID#: _____ Date: _____

Part 2: The below are the stories of two students, Joshua and Happy. Please read their stories carefully and answer the questions.

Joshua's story: Joshua is a nine-year-old boy living with his mother, father, and three sisters. He is in Standard 4. He is often disobedient at home and school. He never seems to feel guilty after misbehaving. He frequently destroys his things, and steals, and runs away from home at least six times a month. He regularly gets into fights and seems to only hang around children who get into trouble. He physically attacked others twice his size. Joshua argues with everyone. He doesn't get along with his brothers or any of the children in the village. He is mean and cheats whenever she plays with them. He's always swearing, having temper tantrums, and threatening people. Joshua frequently destroys his brother's belongings. He also breaks articles of furniture in the home and other things that don't belong to him. He's mostly irritable and stubborn.

18. Do you think that Joshua has a problem?
☐ (1) Yes ☐ (2) No (Please skip questions 19-21, proceed to question 22)
19. If so, please rate how serious you think the problem is.
☐ (1) Mild ☐ (2) Moderate ☐ (3) Severe
20. Do you think the problem requires professional help?
☐ (1) No ☐ (2) Yes
21. If yes, please place a tick by the most appropriate service.
☐ (1) Child and adolescent mental health service ☐ (2) Child health clinic
☐ (3) Primary Care / Doctor ☐ (4) Education / school
☐ (5) Social Services ☐ (6) Other specialists: _____
22. If this child was in your class, how concerned would you be about their well-being?
☐ (1) Very unconcerned ☐ (2) Unconcerned ☐ (3) Neutral
☐ (4) Concerned ☐ (5) Extremely concerned

Happy's story: Happy is in Standard 5, and is 10 years old. She is somewhat shy about making friends, and recently refused to attend a gathering. Since she joined your class at the beginning, she expressed concerns that her father would become ill while she was at school and that she would not be able to care for him. She lives with her father and her brother. As far as you know, her father has no health problems. Happy attends school but has been reluctant on some occasions, and has sometimes been withdrawn after her father drops her off at school. During the school day, she complains of headaches. Happy also once requested permission to return home to see her father.

23. Do you think Happy has a problem?
☐ (1) Yes ☐ (2) No (Please skip questions 24-26, proceed to question 27)
24. If so, please rate how serious you think the problem is?
☐ (1) Mild ☐ (2) Moderate ☐ (3) Severe
25. Do you think the problem requires professional help?
☐ (1) No ☐ (2) Yes



Perceptions and Attitudes Toward Students' Mental Health in Teachers

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26. If yes, please place a tick by the most appropriate service.

- ☐ (1) Child and adolescent mental health service ☐ (2) Child health clinic
☐ (3) Primary Care / Doctor ☐ (4) Education / school
☐ (5) Social Services ☐ (6) Other specialists: _____

27. If this child was in your class, how concerned would you be about their well-being?

- ☐ (1) Very unconcerned ☐ (2) Unconcerned ☐ (3) Neutral
☐ (4) Concerned ☐ (5) Extremely concerned

Part 3. Please answer the below questions

	How big do you think the problem if your students have the conditions stated below? Please tick one box from (1) to (5)	Not a problem (1)	Mild problem (2)	Moderate problem (3)	Severe problem (4)	Very severe problem (5)
37	Not considerate of other people's feelings	☐	☐	☐	☐	☐
38	Restless, overactive, can't stay still for long	☐	☐	☐	☐	☐
39	Often complains of headaches, stomach-aches or sickness	☐	☐	☐	☐	☐
40	Refuses to readily share with other youth, for example books, games, food	☐	☐	☐	☐	☐
41	Often loses temper	☐	☐	☐	☐	☐
42	Would rather be alone than with others	☐	☐	☐	☐	☐
43	Generally NOT well behaved, usually doesn't do what adults request	☐	☐	☐	☐	☐
44	Many worries or often seems worried	☐	☐	☐	☐	☐
45	NOT helpful if someone is hurt, upset, or feeling ill	☐	☐	☐	☐	☐
46	Constantly fidgeting or squirming	☐	☐	☐	☐	☐
47	Has NO one good friend	☐	☐	☐	☐	☐
48	Often unhappy, depressed, or tearful	☐	☐	☐	☐	☐
49	Easily distracted, concentration wanders	☐	☐	☐	☐	☐
50	Nervous in new situations, easily loses confidence	☐	☐	☐	☐	☐
51	NOT kind to younger children	☐	☐	☐	☐	☐

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Perceptions and Attitudes Toward Students' Mental Health in Teachers

Research ID#:

Date:

	How big do you think the problem if your students have the conditions stated below? Please tick one box from (1) to (5)	Not a problem (1)	Mild problem (2)	Moderate problem (3)	Severe problem (4)	Very severe problem (5)
52	Often lies or cheats	☐	☐	☐	☐	☐
53	Picked on or bullied by other youth	☐	☐	☐	☐	☐
54	Often NOT offers to help others (parents, teachers, children)	☐	☐	☐	☐	☐
55	Thinks things out before acting	☐	☐	☐	☐	☐
56	Steals from home, school, or elsewhere	☐	☐	☐	☐	☐
57	Gets along better with adults than with youth	☐	☐	☐	☐	☐
58	Many fears, easily scared	☐	☐	☐	☐	☐
59	POOR attention span, sees work through to the end	☐	☐	☐	☐	☐
60	Use substances (alcohol, cigarette, cannabis (chamba), etc)	☐	☐	☐	☐	☐
61	Breaks things/damages others property	☐	☐	☐	☐	☐
62	Daytime wetting of clothes	☐	☐	☐	☐	☐
63	Truancy from school	☐	☐	☐	☐	☐
64	Is suspicious	☐	☐	☐	☐	☐
65	Is untidy in personal hygiene	☐	☐	☐	☐	☐
66	Uses obscene words	☐	☐	☐	☐	☐
67	Spelling problems	☐	☐	☐	☐	☐
68	Reading problems	☐	☐	☐	☐	☐
69	Writing problems	☐	☐	☐	☐	☐
70	Mathematics Problem	☐	☐	☐	☐	☐
71	Speech and language problem	☐	☐	☐	☐	☐



Perceptions and Attitudes Toward Students' Mental Health in Teachers

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72. Which of the following do you think is/are the cause(s) for child mental health problems **(more than one choice is possible)**?

- ☐ (1) Social factors
- ☐ (2) Heredity
- ☐ (3) Poor school environment
- ☐ (4) Poor home environment
- ☐ (5) Being possessed
- ☐ (6) Medical illnesses
- ☐ (7) Poverty
- ☐ (8) Spiritual factors, Witchcraft
- ☐ (9) Physical trauma or psychological trauma
- ☐ (10) Substance abuse
- ☐ (11) Poor parenting
- ☐ (12) Other: _____

Part 4: Please answer the below two questions for each of the below school-based mental health resources:

(1) Is this service available in your school? Please tick one box from YES or NO.

(2) How much do you think this service is of importance? Please tick one box from

No.	Mental health resources	(1) Is this service available in your school?		(2) How much do you think this service is of importance?			
		Yes	No	Not important (1)	Somewhat important (2)	Somewhat unimportant (3)	Not important (4)
73	School wide bullying prevention program	☐	☐	☐	☐	☐	☐
74	School-wide screening of mental health problems in students	☐	☐	☐	☐	☐	☐
75	Clinical referral of students with mental health problems	☐	☐	☐	☐	☐	☐
76	Student counseling services	☐	☐	☐	☐	☐	☐

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77	Teachers training about identifying students with mental problems	☐	☐	☐	☐	☐	☐
78	Mental health support for teachers	☐	☐	☐	☐	☐	☐

79. To which of the mental health service providers would you like to refer children with challenging mental health problems (**more than one answer is possible**)?

- ☐ (1) School staff/other teachers
- ☐ (2) General hospitals
- ☐ (3) Primary health care unit
- ☐ (4) Counsellors/Psychologists
- ☐ (5) Mental Health Clinical Officer/Mental Health Nurse/Psychiatrist
- ☐ (6) Church
- ☐ (7) Traditional treatment
- ☐ (8) Other (please mention): _____