

Social Capital and its implication on Health Promotion among rural Primary Schools in Botswana

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ABSTRACT

The World Health Organization (WHO) estimates 1.7 million child and adolescent deaths in 2016. These deaths were due to road injuries, diarrhoeal diseases, consequences of non-communicable diseases and environmental hazards. Whilst most of these deaths are deemed preventable through school health promotion programs, there are challenges with availability of healthcare professionals and resources for health promotion, particularly in rural settings. WHO further estimates a 1.1 million global shortage of healthcare professionals by 2030, further limiting the availability of human resources for school health promotion programs. This study therefore analysed the implications of social capital in health promotion among rural primary schools. The objective was to examine the evidence for what is possible and likely to work in rural social and health capital investment. A qualitative approach, through semi-structured interviews, was selected to study the beliefs and practices of teachers regarding health promotion. This study found that parental negligence, poor hygiene and lack of in-service and post-service training of teachers in health-related matters were among the major health promotion challenges in a rural district of Botswana. Strengthening social capital could yield positive results in improving inclusive and sustainable health promotion strategies in rural primary schools, where there is a burden of need.

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CHAPTER 1: INTRODUCTION

This chapter explains the background of the topic while highlighting the research problem that is studied in the present research. The background of the research is explained with various concepts, including the significance of school health promotion programs, Botswana and school health services, beliefs and practices of teachers, and enhancing teacher health literacy. The aim of developing such comprehensive background is to provide in-depth knowledge to the reader regarding the topic before proceeding further. In addition to the background and research problem, assumptions, research questions, aim, motivation, and scope and contribution of the research are also included. Thus, the chapter presents a detailed overview of the topic before heading towards conducting an in-depth literature review.

1.1 Research Area

1.1.1 Background

Many primary school-going children aged 6-12 years spend a considerable amount of their time at school. The school, as a place of deliberate and critical learning, is therefore one of the institutions that could contribute effectively to the promotion of health of school-going children. This institution can model young peoples' behaviour and attitude toward their own health and the health of their communities at large (Poudel, 2018). With strategic health promotion support, school going children and adolescents could become their own health resource, and sustainably so!

In 1999 the Ministry of Health, the Ministry of Education and the Ministry of Local Government in Botswana, developed a National School Health Policy and Procedures (SHP) manual in response to the number of children who were missing school, owing to communicable diseases (Shaibu & Phaladze, 2010). Some of the services outlined in the manual include immunisations, physical examinations, oral health, health education, mental health and services geared towards children with special needs. Oversight for implementation of the School Health Policy is at national, district and local level through school health teams. The school health team at district level is composed of the Health Education officer, Nutrition officer, Environmental Health Officer, Dental Therapist, and social welfare officer who on regular basis visit schools as a team and offer services as per their area of specialty (Tapera & Moseki, 2018). However, as pointed out by Shaibu

and Phaladze (2010) the implementation of the school health policy has been ineffective owing to several factors such as human resource constraints, lack of awareness of the policy and lack of coordination between the three ministries tasked with overseeing implementation of the policy.

Although school health promotion can play a critical role in curbing preventable deaths, it appears to be varied in quality and insufficient in scope and effect. This was revealed by Shaibu and Phaladze (2010) through an evaluation of 27 primary schools in 3 districts in Botswana. Results of this evaluation identified unfamiliarity of the SHP by teachers, lack of age-appropriate teaching materials specific to health education and teachers challenge with offering health education, to name a few.

Furthermore, there seems to be an overwhelming reliance on healthcare professionals to offer school health services including health promotion and more specifically nurses amidst a dire shortage of these professionals. According to Sinha and Onyatseng (2013) the high prevalence of HIV/AIDS in Sub Saharan Africa and more precisely in Botswana, has led to expanded roles for nurses, straining this human resource and leading to increase in shortages. For example, in Botswana nurses are required to provide counselling services for patients with HIV/AIDS, and other public health ailments leading to increased responsibilities. This puts a lot of pressure on the few available nursing staff limiting their availability for school health services. The emergence of the Corona Virus Disease (COVID-19) in 2019 has also overwhelmed human resources in the global health sector and Botswana has not been spared (WHO,2020).

Botswana is a signatory to several United Nations treaties such as United Nations Commission on Human Rights (UNCHR), United Nations International Children's Emergency Fund (UNICEF), United Nations Educational, Scientific and Cultural Organization (UNESCO). It has been proven that the practice of these treaties on the protection of the rights of the child in the field of health is of particular importance and more specifically provide for the right to access to appropriate health services, curative and preventative health care which includes but not limited to health promotion (Pashkov & Olefir, 2017).

The school health team consists predominantly of healthcare professionals and more specifically nurses as outlined by the SHP. Teachers' role is limited to filling information from the under-5 card, documenting information about children with special needs and completing information about immunizations (Ministry of Health,1999). It would appear there is a need to increase the

value proposition of primary school teachers and their agency in the protection of child health rights and in so doing, widen the protection of health rights as a metaphorical 'safety net' for vulnerable children. Rendering teachers as rights champions will also have the likely consequence of marginalising and exposing those among them who deliberately violate children's rights to health, safety and freedom from violence.

1.1.2 Country Profile of Botswana

Botswana is a landlocked country situated in Southern Africa and shares the borders of Zambia and Zimbabwe to the north-east, Namibia to the west, and South Africa to the west and south. Botswana is a semi-arid country with a total land area of 581,730 km² (Seakgosing, 2011). The country attained independence from Britain in 1966 and has since enjoyed four decades of continuous civilian leadership. Botswana is blessed with enormous natural resources, prominently diamonds that make significant contributions to the country's economic and social development. As of 2019, the country's GDP was 18.34 billion with a total population of 2,303,697 (WorldBank, 2021). Sadly, Botswana is ranked fourth in the world on HIV infections, even though it was one of the countries in sub-Saharan Africa to provide free antiretroviral treatment (ART) (UNAIDS, 2021). HIV/AIDS was declared a public health emergency in 2005 (Muyaya, Musanda, & Tamuzi, 2019). This necessitates the need for interventions like health promotion education programs in schools to encourage the young people of Botswana to become more health conscious.

The following image, represents the map of Kgatleng and its location among other districts in Botswana.

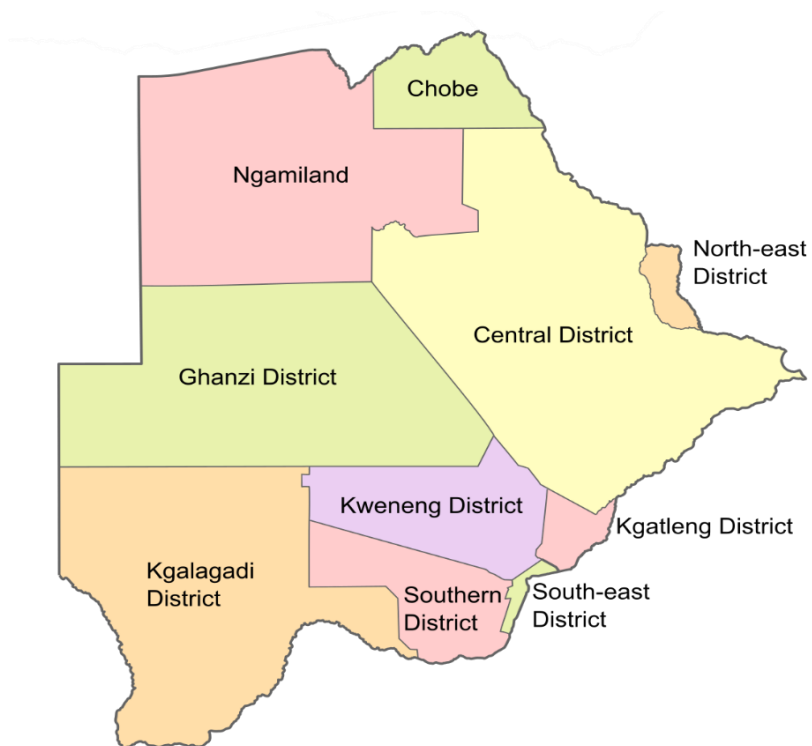


Figure 1 (Botswana by Districts 2022)

1.1.3 School Health Services in Botswana

Health is one of the prime priorities in Botswana and was an integral part of the policy initiative; Botswana Vision 2036. As succinctly summarised in Vision 2036, (2016) through the reduction of HIV and non communicable diseases using multiple approaches that recognise individuals and institutional roles and responsibilities Botswana will live long and healthy lives. More specifically, the vision aimed to promote the well-being and health of school children that make up a third of the country's population. School health services in Botswana were initially started in 1972 by the country's first cohort of community health nurses who were trained in India. Afterwards, the three ministries (Ministry of Education, Ministry of Health, and Ministry of Local Government), formulated the Botswana School Health Policy. This included, among other services, physical assessments, oral health, environmental health, health education, and mental health assessments. Adamson et al. (2006) affirm that efforts such as these made by the Botswana Government have the potential to provide for the cognitive development of children and to assure their overall health and well-being. However, Brooks et al. (2007) argue that regardless of governments' efforts to provide the best health services to school children, a lack of health knowledge exists among the schoolteachers.

Similarly, Olashore et al. (2019) also shed light on the role of teachers in the successful implementation of school health promotion programs. They state that 5-7% of children worldwide have Attention Deficit Hyperactivity Disorder (ADHD). However, teachers are not equipped with the requisite skills to identify and report such cases. It was also found that teachers had inadequate knowledge about the symptoms, causes, and treatment of ADHD, and most of them were not aware of the condition. These findings indicate how critical the teacher's beliefs and practices are in school health promotion programs and how critical it is to increase teachers' agency in protecting children's health rights.

1.2 Research Problem

Generally School health programs have been criticized for being vertically programmes and geared towards the biomedical approach instead of continuous health promotion that help build a basis for self-awareness and disease prevention. The 'unintended' outcomes of vertical programs are exclusion and failure to target all children, those at risk and those potentially at risk. If the existing health and education infrastructure did not intend to promote vulnerability and insufficient access, then why might it do so? This analysis reveals that vertical programmes provide exclusion by design.

Msuya (2004) suggests that the current health programs are more inclined towards directly observing the person through symptoms, followed by therapies and medical interventions. The concern is that this may become exclusive and may miss those *at risk* and *potentially* at risk. Similarly, Tavares Leite et al. (2015) state that school health programs provide value when there is grounded collaboration between health professionals, family members, students, and teachers working together for the wellbeing of children. Like several other developing countries, Botswana also has a high reliance on nurses and other healthcare professionals to offer school health services amidst the dire shortages of these professionals. WHO (2013) estimates a 7.2 million global shortage of medical professionals, and further estimate that the shortage will increase by up to 12.9 million by 2035. This global challenge calls for innovative practices within the schools resources that will not further stretch the already expanded roles of healthcare professionals. To what extent could school teachers be capacitated to provide continuous health promotion to mold school going children's behaviors towards becoming their own health resource? Is this a sustainable practice? Chaudhury et al. (2006) argue that teachers in developing countries *do not* provide a

significant focus on the health of children and *do not* consider it as their duty. It has been observed that during the current COVID-19 pandemic, teachers across many developing countries actively participated in the health screening of children at the entry points of the school (Pokhrel & Chhetri, 2021). The capacities and knowledge of the teachers conducting this screening are yet to be established. If teachers could redefine their role under pandemic conditions (at great risk to themselves), why could they not do so under non-pandemic conditions where there has been a ‘slow-burn of inequality’ (Marmot, 2020 in relation to health vulnerability? Unfortunately, there is also a paucity of research evaluating rural teachers’ beliefs and practices in promoting health among school going children. Therefore, to bridge this research gap, the present study intends to investigate the health promotion beliefs and practices among rural primary school teachers in a district in Botswana.

1.2.1 Inclusive Innovation in School Health Promotion

In response to the political sentiment to never waste a good crisis (Marmot, 2020), the pursuit of innovation can help decrease inequalities and exclusion (Foster & Heeks, 2015). Inclusive innovation is best understood as a ladder consisting of various levels (Heeks et al. 2014). These levels explain that innovation is considered inclusive if it addresses the needs of the excluded group, used by the excluded group, has a positive impact on the lives of the excluded group, includes the excluded group in the development of the innovation, created within a structure that is inclusive and created of knowledge and discourse that is inclusive (Heeks et al., 2013).

Nkonyeni (2019) agrees that people affected by the system must have the opportunity to voice their concerns, and present solutions in addressing system problems. In the context of medical anthropology, “Nothing about us, without us” (Charlton, 2000)¹ is a book on disability oppression

¹ “James Charlton has produced a ringing indictment of disability oppression, which, he says, is rooted in degradation, dependency, and powerlessness and is experienced in some form by five hundred million persons throughout the world who have physical, sensory, cognitive, or developmental disabilities. Nothing About Us Without Us is the first book in the literature on disability to provide a theoretical overview of disability oppression that shows its similarities to, and differences from, racism, sexism, and colonialism. Charlton's analysis is illuminated by interviews he conducted over a ten-year period with disability rights activists throughout the Third World, Europe, and the United States. Charlton finds an antidote for dependency and powerlessness in the resistance to disability oppression that is emerging worldwide. His interviews contain striking stories of self-reliance and empowerment evoking the new consciousness of disability rights activists. As a latecomer among the world's liberation movements, the disability rights movement will gain visibility and momentum from Charlton's elucidation of its history and its political philosophy of self-determination, which is captured in the title of his book. Nothing About Us Without Us expresses the conviction of people with disabilities that they know what is best for them. Charlton's combination of personal involvement and theoretical awareness assures greater understanding of the disability rights movement.”: <https://www.ingramacademic.com/9780520224810/nothing-about-us-without-us/>

and empowerment and highlights an important principle of co-creation of solutions with and within communities. This study therefore intended to co-create innovative solutions to increase teacher agency in the protection of children's health rights. Furthermore, Nkonyeni (2019) also highlights the value of collaboration and argues that identifying useful ideas and replacing it with the odd ones is significant in increasing collaboration.

A study by Shaibu and Phaladze (2010) noted a shortage of health professionals as one of the major factors contributing to poor promotion of health in schools. As already outlined by the World Health Organisation, Sub Saharan Africa continues to experience a dire shortage of health professionals. The WHO 2035 projections are not promising either. This therefore challenges stakeholders to develop initiatives that are not entirely dependent on health professionals to provide school health services. A case in point is the Learning Treatment Kit (LTK) Initiative in the public primary schools of Malawi. This is a cross sectoral collaboration that intends to reduce the burden of Malaria in schools by upskilling teachers to identify signs and symptoms of Malaria and to initiate treatment at the school (van Niekerk & Chater, 2016).

Mental health assessments are key services of school health. However, rural schools and those in low resourced areas persistently face a shortage of mental health specialists. Task sharing is another collaborative approach that may help address unmet mental health needs in these areas (Hoeft et al., 2017). Task sharing is a strategy where non-health professionals are upskilled to perform basic duties that would traditionally be performed by health professionals due to a shortage of human resources. Though task sharing has historically been practiced within the health sector, it provides great insights and foundation for inter sectoral collaboration. A notable collaboration in school health is one between the Ministry of Health and the Ministry of Education. It is of interest to this study that Shaibu and Phaladze (2010) also report poor coordination between these two ministries in Botswana. The findings of this study have been extended by Lenkokile (2016) who advocates for greater synergy between the Ministry of Health and Ministry of Education in Botswana, implying that a co-operation between these departments in Botswana is essential in promoting health promotion at the school levels and is mutually beneficial.

Based on the findings of these studies, it can be argued that there is a positive role that the school can play in influencing behaviour of children through promoting healthy practices and providing preventive health services. However, many studies have highlighted limitations of school health

services when systems depend entirely on healthcare professionals to provide these services. This is primarily because of the scarcity of these professionals especially in developing countries. It is therefore necessary that schools look for innovative solutions to improve provision of school health services. As key stakeholders in school health services it is important that this study seeks to evaluate teachers' beliefs and practices in the protection of child health rights through health promotion.

1.2.2 Teachers as child health rights advocates

Global challenges related to child health and wellbeing are exponentially existential threats to children (UNICEF, 2019). Inequalities, nuclear proliferation, forced migration, armed conflicts, violence, globalisation, as well as climate change accounts for global issues violating children's rights (Goldhagen et al., 2020). In recent years, there has been an increasing interest on teachers as child health rights advocates as invigorated by UNICEF (UNICEF, 2019). Schools play a pivotal role at improving and addressing childhood health problems. Teachers can play a critical role to address obesity, diabetes, asthma and several other non-communicable diseases. The long hours children spend at school gives a better opportunity for teachers to address child health. Teachers are therefore well positioned to be critical stakeholders in advocating for child health rights (Goldhagen et al., 2020).

1.2.3 Increasing Rural Teachers Agency in the Protection of Children's Health Rights

The importance of beliefs and practices of teachers in health promotion cannot be undermined. In a study conducted by Graciano et al. (2019) in Brazil, teachers were unanimous in affirming the significant relationship between knowledge and the quest for health. The study further revealed an awareness of the influence of the environment and school surroundings on the health-sickness process. In Africa, recent surveys in Nigeria revealed that teachers had poor perception of their roles in the school health program as a result of poor preservice and in service training (Adebayo, 2019). It is likely that when teachers have a poor perception of their role in school health services, they will not participate fully as they ought to. Similarly, if they have a good perception about their role, they may contribute positively towards the provision of school health services.

Lack of health knowledge by teachers reported by Shaibu and Phaladze (2010) highlights a gap in the capabilities of teachers in provision of health education and promotion, which are key to the Botswana National School Health Policy. These findings were reported ten years ago. It is therefore necessary to evaluate if there has been any corrective interventions and any improvement

thereof. This study also intends to evaluate educators' capabilities against the requirements on the Botswana National School Health Policy. An assessment of any pre-service and in-service training geared at capacitating teachers to meaningfully participate in health promotion will be made.

1.2.4 Significance of School Health Promotion Programs

Schools remain important institutions for promoting health among school-going children. School health promotion programs are regarded as activities aimed at providing knowledge and skills about health to school children, staff members, and the communities in which the school is located. Toi Te Ora Public Health (2021) discussed that school health promotion programs work for the benefit of the student, specifically by allowing them to continue their education without being excluded from schools due to communicable diseases. In a school setup, teachers can play a significant role in health promotion if they receive pre-service and in-service training. Including subjects in the curricula that address the determinants of child and adolescent health could also yield positive results.

There is substantial literature that indicates that the health of children plays a significant role in establishing a health conscious society. This concept evolved in the 1980s when the World Health Organisation (WHO) developed the health promotion model for schools to ensure a healthy environment for the students. The health promotion model aims to improve the health and quality of life of children by committing to social reform and equity. Learning through health promotion programs has become an area of interest of the schools, specifically to guarantee the well-being of children and adolescents. WHO (2020) documented that approximately 500,000 children - between the age of 5-9 - died in 2019 because of different health conditions, including diarrhoea, obesity, road injuries, and drowning. This calls for innovative practices that could contribute to reducing the mortality and morbidity in this age group. Graciano et al. (2019) articulated that school health promotion programs have great potential to control health issues like obesity, respiratory complications, diabetes, and others which can eventually reduce mortality among children and adolescents. According to Aghazadeh, Aldoory, and Mills (2020), primary school children's health is even more critical because children in this age group tend to make the everyday decision like, 'how to play' and 'what to eat'. Most importantly, the early formed health behaviours and attitudes of children also predict their future health outcomes. In the same study, Aghazadeh, Aldoory, and Mills (2020) also provided an example of Taiwanese sixth-grade children whose

obesity successively decreased due to the high health literacy rate provided through health promotion school programs. It is therefore beneficial to empower children in primary schools to become their own health resource and to take responsibility for their wellbeing in the future.

. 1.3.1 Research Assumptions

Latief (2009) states that research assumptions could be considered the aspects that the researcher holds true.

The assumptions made for the current research are as follows:

1. Children in developing countries have multiple health needs.
2. Education is considered a social determinant of health.
3. Health is considered a reciprocal determinant of education.
4. Limitations of school health services include vertical programs of varied qualities.
5. Critical stakeholders such as teachers have an interest in the health and well-being of their students and want to contribute to healthy community building.

1.3.2 Research Questions

Bordage and Dawson (2003) describe the research question as the single most important component of the study and serves as the research's keystone. It is because it identifies the unique contribution of the study, clarifies the research focus, and describes data collection criteria. Considering these aspects, the following research question and sub-questions are developed for the current study.

Research Question: What value proposition do teachers in rural Botswana have for strengthening social and health capital in the context of inclusive innovation?

Sub questions

- i. **Sub Question 1:** What is the evidence for what is possible and likely to work in rural social and health capital investment?
- ii. **Sub Question 2:** How do teachers perceive of their roles as educators intersected with the role of health promoter and health rights advocate?

- iii. **Sub Question 3:** What framework emerges from the above that explicates the roles and scope of the rural teacher as child health rights champion?

1.3.3. Research Aim

Research aim expresses an aspiration or an intention of the study and is usually written in the form of a single sentence. It represents that what the current research project is going to achieve at the end. Therefore, it demands the research aim be specific and realistic (Future Learn, 2021). By keeping in mind all the formalities of developing the aim of the study, the aim of the current research is to:

“Make praxis-oriented recommendations for inclusive innovation practices by teachers in the advancement of child health rights and reduction of their vulnerability”.

1.3.4 Research Objectives

A research objective outlines the steps that the researcher takes to achieve the research aim. FutureLearn. (2021b) stated that research objectives define what, why, who, and how questions of the research to guide the researcher throughout the research phase. The research objectives should be consulted from time to time while making the required changes. However, the objectives of this research are quite comprehensive and developed based on ‘SMART’ (specific, measurable, achievable, realistic, and time constraint) criteria. The objectives of the current research are as follows.

Research Objective 1: To examine the evidence for what is possible and likely to work in rural social and health capital investment

Research Objective 2: To document how teachers' perceptions of their roles as educators intersect with those of health promoters and health rights advocates

Research Objective 3: To explore the framework that explicates the roles and scope of the rural teacher as child health rights champion.

1.4 Motivation

Attaining Sustainable Development Goal (SDG) 3 of ensuring healthy lives and promoting well-being for all at all ages requires that countries develop programs that are inclusive, horizontal and easily accessible by all children in all areas at all times. Botswana like many other countries in Southern Africa, is battling with the burden of non-communicable diseases. Tapera et al.

(2019) estimate that 37% of deaths in Botswana in 2014 were due to non-communicable diseases. Ischemic heart diseases, stroke, diabetes and diarrheal diseases are among the top ten causes of death in Botswana (Naghavi et al., 2017). It is worth noting that these are deemed preventable causes of death and are largely due to lifestyle choices. Health promotion in schools may contribute to molding children's behaviour towards making positive health choices and becoming their own health resource. Teachers' role in school health promotion cannot be undermined.

This study intends to shift the discourse leftwards, towards prevention through increasing the agency of teachers in rural primary schools. Teachers are viewed as key stakeholders, well positioned to model young people's behavior and are therefore latent but critical actors in health promotion. The extent to which teachers perceive of their role of being health and well-being champions for all children under their care is unknown. This study therefore seeks to document the beliefs and practices of primary school teachers to appraise their self-conception of their role and scope in relation to the protection of child health rights.

The findings of the study will be significant in framing educators as bystanders, disinterested onlookers, critical actors or advocates in the protection of child health rights. The assumptions stated above bear reference. The extent of agency or learnt helplessness in this regard is not documented in this sample and may yield value in recommending strategies to promote teachers agency and mitigate learnt helplessness. The intention includes self-appraisal of the necessary resources upon which child rights protection may be contingent. The act of engaging teachers is an act of promoting inclusivity and reflexivity.

1.5 Scope and Contribution of Research

Research scope explains the extent to which the topic or subject of the study is explored while specifying the parameters of the study. The scope helps the researcher define the research boundaries; hence, keeping track of the research activities. It can also help to provide clarity and objectivity to work, which enables the researchers to finish the work as per the defined scope. The scope of the current research is associated with defining the beliefs and practices of primary school teachers in health promotion programs while specifically considering the case of Botswana.

The findings of this research can be helpful in framing the teachers as disinterested onlookers, bystanders, advocates, or critical actors in protecting the health rights of children. In addition, the research findings could be extended in future studies as they are based on determining the extent of children's helplessness in receiving health-related services. Similarly, innovative strategies and solutions are proposed in the study for improving health promotion in poorly resourced areas. Therefore, any research that is dealing with child health promotion programs and is considering the beliefs and practices of teachers can seek guidance from the findings of the present study. However, since children health programs are different in different countries and students also differ based on class, age, and others, the findings could not be generalized if it is not related to primary school teachers especially in the rural setup. Besides, the results of this study are also expected to add value to the body of knowledge in school health programs, particularly in Botswana, where there is a considerable scarcity of research in this area.

1.6 Definition of Key Terms

1.6.1 Social Capital

Social capital (as identified by Bourdieu) is regarded as the resources which are accessible to the individuals and groups within their social network groups (Álvarez & Romaní, 2017; Moore & Kawachi, 2017).

1.6.2 Health Promotion

The term 'health promotion' is demonstrated as any planned measure that is taken to promote health. In accordance with Nutbeam (1998), the phenomenon is aimed at enabling people to have control over their wellbeing and health. Likewise, Chapman (2004) also presented the idea that health promotion is aimed at empowering and engaging communities and individuals to adopt healthy behaviours while bringing changes in their lifestyle to minimize the risk of injuries and diseases. Rootman and Goodstadt (2001) contended that there are seven (7) principles that are required to be considered while conducting health promotion activities. These include 'empowering' (allowing communities and individuals to have more power over the factors or conditions that might affect their wellbeing); 'holistic' (fostering spiritual, social, mental, and physical health); 'participatory' (ensuring the involvement of all concerned stakeholders throughout the process); 'multi-strategy' (utilizing the combination of a variety of approaches); 'sustainable' (introducing such changes that can be sustained once the funding is ended);

‘equitable’ (guided by the concerned authorities for social justice and equity); and ‘intersectoral’ (ensuring the collaboration of agencies, belonging from relevant sectors). This evidence shows that health promotion is all about encouraging healthy patterns and lifestyles among the population.

1.6.3 Primary School teachers

These are teachers who teach students belonging to the age group of 5-11 years. Hargreaves et al. (2003) stated that primary school teachers hold the responsibility of building the intellectual, social, moral, and physical development of the students. Sanoto and Van der Walt (2018) affirmed that in Botswana, primary school teachers are required to complete a minimum of a three (3) year Diploma to teach in any primary school.

1.6.4 Botswana

Botswana is a landlocked Southern African country with a population of about 2.304 million as of 2019. The literacy rate of the country in 2013 was 97.5%. This indicates a high level of interest of its citizens towards education. In addition to this, as of 2015, there were almost 1755 primary schools in Botswana, of which 755 were reported to be public schools, and 1000 belonged from the private sector (Statistics Botswana. 2021).

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature related to the role of teachers' beliefs and practices in school health promotion programs. To gain in-depth insights, an extensive literature review has been discussed by demonstrating the areas of health promotion, health promotion and social impact, health-promoting schools, and intersectional collaboration in health promotion. The chapter comprehensively discusses the role of schools in promoting health, together with potential outcomes of health promoting schools. Additionally, it presents a range of arguments and in-depth discussion on similar themes including theoretical foundation of health promotion, social capital and health promotion, health promoting schools, and importance of health promotion in educational institutes. The chapter also provides summary of the key arguments and findings, following a narrative analysis².

2.1 Health Promotion

2.1.1 Definition of Health Promotion

Health promotion has become an increasingly prominent topic within the circle of scholarly research as it contributes to improving the lifestyle and overall wellbeing of the individual, specifically by encouraging them to adopt healthy habits and lifestyles. According to Cragg (2013), health promotion is regarded as the process that enables individuals to have control over their health and overall wellbeing. In other words, it is the process of empowering individuals to have control over health determinants; hence, improving their overall health. Koelen and Van den Ban (2004) stated that health promotion is one of those concepts that emphasize on adequate utilization of institutional, political, social, and personal resources for enhancing wellbeing, improving health, and preventing diseases. Graciano et al. (2019) also stated that health promotion is the process that involves bringing improvements to the quality of life of people, specifically through greater

² “Narrative analysis is a genre of analytic frames whereby researchers interpret stories that are told within the context of research and/or are shared in everyday life. Scholars who conduct this type of analysis make diverse—yet equally substantial and meaningful—interpretations and conclusions by focusing on different elements. These elements include, but are not limited to, how the story is structured, what functions the story serves, what is the substance of the story, and how the story is performed. Communication scholars from a variety of perspectives ranging from quantitative to qualitative as well as traditional to postmodern conduct narrative analyses, which makes it challenging to cover all of its nuances; however, broad strokes are possible.”

<https://methods.sagepub.com/reference/the-sage-encyclopedia-of-communication-research-methods/i9374.xml>

participation of the entire society. This indicates that health promotion maybe a valuable approach to attaining and encouraging good health among individuals.

The concept of health promotion is detailed in the study of Chapman (2004) arguing that the main objective of this concept is to assist people in changing their lifestyles and adopting habits that prevent them from diseases and improve their health. A change in the lifestyle could be brought through ensuring the provision of a supportive environment that facilitates the individuals to adopt a healthy lifestyle. To further validate the assertion, Chapman (2004) provided an example that organizations have developed several health promotions programs for their employees to influence and promote individual healthy behaviours – particularly by enhancing their skills, knowledge, and attitudes. In a similar context, Goetzel and Ozminkowski (2008) stated that organizations have started to offer health promotion facilities to their employees to reduce the cost that is usually incurred on health care, worker’s compensation, and disability. However, it is important to note that health promotion is not only for the adult community, working in organizations as Gupta et al. (2005) elucidated that health promotion is equally useful in school settings and childcare centres. The World Health Organisation (2021) reported that in the school settings, the implementation of the health promotion concept contributes to fostering more improved learning and overall wellbeing of the students, staff, and even the local community. It is because these activities are not conducted on individual levels but actively engage community leaders, healthcare professionals, parents, students, teachers, and education and healthofficials. The main objective behind this engagement is to make the school a healthy andproductive place for everyone. In the light of these findings, it can be affirmed that health promotion is a comprehensive approach that aims at improving the lifestyle, health, and overall wellbeing of people regardless of age, gender, or social status (Rhoads et al. 2021).

2.1.2 Need for Health Promotion

The need for health promotion in promoting public health is more relevant today than ever before. The health sector has been kept at crossroads where the world is suffering from a triple burden of diseases. On the one hand, the health sector is striving to complete the unfinished agenda of communicable diseases while fighting against the newly emerging and re-emerging diseases, whereas on the other hand, the sudden spike in non-communicable diseases (NCD) is significantly affecting public health. The factors like globalisation, urbanisation, ease of world travel, and

technological advancement which served as an aid in the development of health promotion and favourable health outcomes, are also some of the factors which are extensively becoming enablers of poor health outcomes due to the changed lifestyle and unhealthy dietary patterns (Kumar & Preetha, 2012). For instance, the high prevalence of tobacco use and lack of physical exercise and activities leads to biological risks, which result in an increase in NCDs.

The health and education are inextricably linked to each other. Individuals in good health are likely to learn more effectively. St Leger, Young, Blanchard, and Perry (2010) are of the view that health promotion assists the schools in meeting their educational targets as well as positive social impact. This is possibly because health promotion activities are likely to reduce the risks of ailments and injuries that ultimately result in high absenteeism and negatively impact learning. Graciano et al. (2019) also supported this idea by claiming that health promotion makes major contributions in reducing health-related problems among the students, like obesity, poor hygiene, that result from poor habits and unhealthy lifestyles. Viner and Macfarlane (2005a) emphasized the need for health promotion programs - among adolescents by stating that worrying trends in mortality and morbidity rates and rising psychological and mental diseases require immediate interventions and actions. These actions could relate to educating individuals and enhancing their knowledge about protecting themselves from preventable diseases and injuries. Similarly, Viner and Macfarlane (2005b) also said that an increased rate of adolescent gambling, which is 5-6% among youth, is resulting in increasing drug, alcohol, and smoking consumption among young individuals. These practices lead children towards other criminal activities like use of illicit drugs, stealing, and general disregard for the law. These trends indicate that there is a need for health promotion programs to drive healthy and positive behaviours among children.

Shonkoff et al. (2012) in their study found that health promotion plays an important role in reducing the risk of chronic and transmissible diseases that usually affect the physical and mental health of children. Jancey et al. (2016) agrees that there is a need for health promotion as these programs make an immense contribution in reducing the risk of chronic diseases such as cardiovascular diseases, diabetes, and others that have become prevalent among children. Along with reducing the risk of diseases, the programs also play a pivotal role in creating self-awareness and a sense of responsibility among the individuals that include quitting smoking, minimizing alcohol intake, maintaining a balanced diet, assuring regular physical activity, and so on. Graciano et al. (2019) propounded that health promotion programs are usually focused on the development

of different activities and policies that are geared towards promoting the wellbeing and health of the staff, students, as well as the community that is involved in the programs. This eventually results in bringing improvement of the quality of life of the whole community. However, it is important to bring to the notice that the success of the policies and practices – developed for health promotion – is dependent on the collaborative efforts of parents, students, and authorities belonging from the education and health sector (Smith, Tang, & Nutbeam, 2006). Aghazadeh, Aldoory, and Mills (2020) also explicated that the involvement of multiple stakeholders like researchers, schools, hospitals, teachers, and the community can play a vital role in enhancing health literacy and bringing improvements to children wellbeing. In the light of this discussion, it can be stated that there is an overwhelming need for health promotion worldwide as it brings behavioural, social, and institutional change in society. More specifically, it brings positive impacts on the learning capacity of the students and allows them to lead healthy lives.

2.1.3 Health Promotion Settings

There are many factors that serve as barriers to health promotion in rural areas as compared to urban communities. Rural settings, unfortunately, report a higher prevalence of chronic conditions and diseases as compared to their urban counterparts (Leviton et al. 2000). In addition, the rate of mortality and disability is also higher in the rural regions (Paulik et al. 2010). These health challenges act as a menace due to people's limited access to health promotion and disease prevention programs, along with a significant difference in the healthcare services received. Other social determinants contributing to ill health include the increasingly high poverty rates as compared to urban settings, the cultural and social stigma around health behaviours, education as well as linguistic disparity, limited accessibility, limited access to transportation, unemployment, and lack of access to healthy and clean food along with physical activity options to name a few (Rural Health Information Hub, 2020). The notion of 'settings' has been the area of interest among scholars and policy makers as it proliferated in various terms, including health settings, health-promoting environments, community development for health, and others. Scriven and Hodgins (2011) affirmed that the term 'setting' signifies the context in which people engage in day-to-day activities and in which personal, organizational, and environmental factors interact for affecting the wellbeing and health of the individuals.

While discussing the same context, Whitelaw et al. (2001) articulated that the health promotion setting is the best developed and most popular form of expression to implement the health promotion efforts. To further support the idea, the authors provided a three-model approach in as far as health promotion setting is concerned. The first model is conservative in its approach as it is based on individual-focused activities to promote health knowledge. The second one is a more active model which aims to bring changes in individual behavior. The third one is a vehicle model as it aims at bringing change in the broader settings. Thus, explaining that health promoting settings provide a medium and mechanism to influence the population in bringing positive lifestyle changes in their daily lives. Moreover, Sørensen et al. (2012) presented an integrated approach based on medical and public health views related to health literacy. The model suggested by these authors incorporates the holistic approach that includes the social and environmental determinants to enhance health-related knowledge. Such a model can serve as the basis for developing and promoting health education programs among individuals. Hence, it is safe to say that a health promotion setting - as a multi-disciplinary method – helps in maximizing disease prevention while improving the overall wellbeing of the individuals.

Inquiring about the needs and issues of people is another health promotion settings–specifically related to health and wellbeing and taking all possible measures to maximize the prevention of diseases. Concerning this, Poland, Krupa, and McCall (2009) postulated that a setting approach theory – in health promotion - advocates various opportunities for situating practice in a social context, optimizing the interventions and policies for contextual contingencies, targeting the critical factors that have an impact on the attitudes, and rendering more health-enhancing settings. Additionally, framework consisting of three basic factors help in having strong health promotion settings. These include understanding the setting, change settings, and developing and translating knowledge that can help the practitioners to develop a better understanding of the history and culture of people in different settings. These could be organizational promotion programs, community development, school-based programs. This is understood through the findings of Neufeld and Kettner (2014) that showed that school settings are often considered for assessing the causal factors that are involved in the illness of influenza. It is mainly because influenza is often caught by school-going children and causes absenteeism. In such a case, the settings approach provides a framework for understanding the causal factors for influenza outbreaks in schools while assessing the intervention opportunities that

could be fruitful in minimizing the burden of the illness. Thus, health promotion in a school setting can be defined as the activities undertaken to improve and protect the health of everyone involved in a school setting. The concept is vaster than health education as it includes policies, provision of relevant and rightful environment, and preparation of curriculum, along with community links to health services. All in all, the settings approach is an eminently feasible way of promoting health among individuals.

2.1.4 Role of School in Health Promotion

The healthcare sector perceives schools as the key player in solving the health problems of the community. Education and health are linked in both a local and global scenario. The importance of health promotion in schools is that young people attending schools have a better chance of good health, and healthy children tend to learn more effectively. The school setting is central to the improvement of public health by providing a supportive environment for the promotion of health. A supportive environment is therefore related to both physical and social aspects of the school setting. It refers to the surrounding where people live, their homes, the local community, and the places where they work and play. It also includes the physical, economic, spiritual, political, and social dimensions of their surrounding (Persson, 2016). The school environment includes the school's physical environment, which includes classroom layout, maintenance, and psycho-social factors, including attitudes and atmosphere of the school, classroom climate, student involvement, and the relationship between teachers and students. St Leger (2004) articulated that the importance of schools for solving health issues is the same in both the developing as well as developed countries. In this reference, many health-related issues such as obesity (in developed countries) and sanitation and hygiene (in developing countries) could be incorporated into school curricula to promote healthy habits and lifestyles among young people. Considering the benefits, in the middle of the 20th century, various schools started teaching topics related to nutrition, oral health, drugs, sexuality, HIV/AIDS, traffic safety, and mental health to improve the wellbeing of children. St Leger (2004) further elucidated that this initiative was taken because schools, media, peer influence, are some of the prominent factors that shape the health of the individuals. These findings show the immanent role of schools in health promotion. In the same context, Young (2005) also affirmed that the relationship between the schools and health promotion is not new but has a history of decades. Such an approach aims to use the combination

of actions that the school takes for improving the health of the students, teachers, and community. While extending the discussion, Young (2005) also claimed that schools hold the responsibility of maintaining the relationship between students and staff, school, and community, while offering guidance related to health issues and potential ways of avoiding/treating them. All in all, these findings point out the noteworthy role of school in bringing healthy change in the lives of staff, students, families, and community – as a whole.

It is evident that many international organizations such as World Health Organisation (WHO) have made extensive efforts to promote health through schools. Tang et al. (2009) stated that in the year 2007, WHO – with the collaborative efforts of the United Nations – chaired a meeting to encourage the countries to promote health through schools. The core findings of the meeting directed towards the fact that schools can play an implausible role in addressing the risk factors that are related to non-communicable diseases. These include tobacco consumption, unhealthy eating, and various mental health conditions. In addition to this, it was also recognized that – through education and awareness – schools could also contribute to reducing injuries, violence, and other issues among the children. Bardi et al. (2014) also proclaimed that one could not deny the significant role of school in promoting health among children. This is the reason why various schools have integrated WHO suggested health promotion activities. Some of the prominent activities include nutrition assessment, measurement of growth parameters, photovoice/photo-novella, evaluation of renal health/hydration, and other fitness programs. Authors have mentioned that such activities are developed with a purpose to engage the schools in the health responsibility of children who can bring change in the community. Thus, it showed that schools have a primary role in promoting health among people.

2.1.5 The Potential and Real Outcomes of Health Promoting Schools

This section reviews the real and potential benefits of health-promoting schools with the help of pertinent literature. Different concepts relating to the potential and real outcomes of health-promoting schools are discussed. These include educational outcomes, health schools policies, local community, health services, cost-effectiveness, social environment, and student's skills.

2.1.5.1 Educational Outcomes

It has been established that health-promoting schools tend to offer extensive benefits in terms of yielding better educational outcomes. In particular, health-promoting schools focus on improving students' wellbeing, specifically by offering a healthy environment and protecting them from harm that eventually results in improving well-being and learning capabilities.

Various studies have examined that children learn better in a healthy environment (Arya & Devi, 1991; Lavin, Shapiro, & Weill, 1992; St Leger, 1999). The studies also highlighted that children show more interest in their studies when they are in good health. Health-promoting schools seem to be a beneficial approach to increasing students' learning capacities. Paulussen, Kok, and Schaalma (1994) also explain that healthy environments enhance classroom-based learning outcomes, which can further be improved through a comprehensive focus on promoting health in schools. In the light of these findings, it can be said that health-promoting schools enhance the educational outcomes of the students.

2.1.5.2 Healthy School Policies

Very few studies have been carried out to support or shed light on the policy components of health-promoting schools. In other words, there is insufficient literature that compares the outcomes of schools that have healthy policies versus schools that do not have any health policy. It has been observed that some of the schools in Australia have a sun protection policy named “no hat – no play”. Likewise, to ensure children's safety during bicycle riding, the school has “no helmet-no bicycle”. However, there is a scarcity of literature assessing the impacts of these policies on the wellbeing and learning of the students. Nevertheless, Went (1992) discussed that such policies result in positive outcomes regarding improved health conditions and enhanced learning. Moreover, the policy concept which has been neglected by literature was extensively discussed by the WHO (1996) that outline the eleven out of thirty components of health-promoting school; however, a strong focus is still needed on policy for the sake of bringing improvements to childrens' health.

2.1.5.3 Improved Health Services

The findings of earlier literature on health services showed a strong correlation between the schools and the health sector, specifically in ensuring the screening and treatment of the students against chronic diseases, injuries, and others (Baranowski et al. 1997). The research work of Shilton (1993) and NHMRC (1997) have also suggested that more improvement could be brought in the health services of the schools by promoting partnership and collaboration between the health and education sector. In the same context, Kolbe (1993) articulated that more fruitful partnerships are possible; however, it needs both health and education sectors to formulate intervention policies aligned with the school community's needs.

2.1.5.4 Better Physical and Social Environment

Health-promoting schools play a pivotal role in advocating for better physical and social environment that eventually contributes to better health conditions and learning outcomes for children. Dommers and Ingoldby (1996) stated that health-promoting schools tend to address the physical environment by ensuring that buildings are appropriately ventilated and lit and have clean drinking water, washing and toilet facilities, recycling of renewable resources, and adequate waste disposal facilities. This is because the physical environment has successive effects on the health conditions of children that protect them from the risk of diseases and injuries. While supporting this idea, Rowe (1987) claimed that the inadequate physical environment of the school building, like poor sanitation conditions, scarcity of freshwater, risks of physical injuries, etc. causes serious health issues in children. These health issues might range from physical to mental problems that directly affect children's capacity to enjoy a healthy life and achieve their academic milestones. Therefore, it can be concluded that health-promoting schools contribute to the establishment of a better physical environment that is favourable for children's well-being and overall learning.

The health-promoting school's prominent outcome is associated with creating and offering a better social environment to the children, specifically through well-developed school ethos and psycho-social environment. The World Health Organisation (1996) also provided a range of areas and identified various functions and structures of the school that can contribute to a better and healthy social environment. These components include discipline procedures, reduced verbal and physical violence, support mechanisms for differently abled students, and tribal, religious, and cultural

celebrations. While demonstrating the benefits of such activities, Nutbeam, Smith, Moore, and Bauman (1993) and Hawkins and Catalano (1990) propounded that such positive experiences and healthy school activities have a long-lasting effect on children's health and their general behaviour in the later stages of life. Therefore, the schools that provide a peaceful and healthy environment tend to have the students having better health and educational outcomes. Therefore, based on these findings, health-promoting schools promote a better physical and social environment for the students that eventually reflects in their health conditions and overall education outcomes.

2.1.5.5 Pupil's Skills

Literature suggests that all health-promoting school programs aim to increase students' skills set. Allensworth (1993) proclaims that health promoting school contributes to enhancing pupils' technical skill set, including assertiveness, media analysis, decision making, negotiation, and behaviour contracting and mediation. The report, published by World Health Organisation (1996) highlighted that the skill set that is improved due to the health-promoting schools are negotiation, decision making, and problem-solving. The students develop these skill sets through participatory learning methods, guides, and manuals that can help the children spend healthy and productive lives. All in all, it can be affirmed that health-promoting schools can enhance pupils' skill set, which they can utilize in their entire life.

2.1.5.6 Beliefs and Practices of Teachers towards Health Promotion

Teachers' beliefs and practices play an important role in successfully implementing school health promotion programs. According to Fang (1996), teachers thought processes consisted of three fundamental types that define their beliefs and practices. These three types include teacher planning, teacher's interactive thoughts and procedures, and beliefs and theories of teachers. Teacher planning includes the thought processes that the teacher engages in before- and after-class interaction that projects a reflection on their thought processes. The teacher beliefs and theories provide rich knowledge about the events, people, and circumstances and can affect the planning and thought processes. All these three dimensions have a huge impact on teaching practices. In a similar context, Ha, Rios, and Pannaraj (2013) by highlighting the importance of teachers in school health promotion programs, posited that when teachers thought school's mission impacts processes – i.e., providing the best health facilities to the children – then it became a story

of success. The author validated this claim with the help of an example associated with influenza illness that was first reported by the school personnel. After the disease outbreak, teachers showed immense responsibility towards the community and reported it and saved the families from severe health conditions.

Similarly, Lartey et al. (2007) stated that 85% of primary school teachers believe that pedestrian safety education is very important for the students. This perception or belief of teachers urges them to teach pedestrian safety rules to the students by delivering informative lectures and protecting them from traffic accidents and death. These findings show that teachers' thought processes - built through their perception and beliefs towards the efficacy of providing the best health services to the children - can result in the success of school health promotion programs.

2.1.5.7 Enhancing the Teacher Health Literacy

Teachers play a major role in the successful implementation of school health promotion programs. Booth (2021) is of the view that different diseases and pandemics like COVID-19 cause long-term damage to children's mental health. It has been reported that children between the ages of 5-16 years are suffering from mental health disorders globally. The author mentions that teachers can play a significant role by providing mental health awareness, identifying children in need of help and referring them for psychosocial support. However, Jourdan et al. (2011) highlighted that the anticipated outcomes of such initiatives and services can only be achieved by increasing the teacher's health literacy, specifically through pre-service and in service training. Similarly, Vamos, Xie, and Yeung (2020) reported that health education courses are deemed to be highly beneficial for general education teachers to increase their knowledge about children's health and to prepare them for the future. Therefore, by increasing the health literacy rate of the teachers, primary schools can easily promote and ensure the health and wellbeing of their students, staff, and community.

2.1.6 Theoretical Foundation of Health Promotion

There are several conceptual and theoretical models associated with health promotion strategies. This review focuses on two prominent theoretical frameworks that are widely being

used in health promotion research: The Health belief model (1974), and Beattie's (1991) model of health promotion strategies:

2.1.6.1 The Health Belief Model (1974) for Health Promotion

The Health and Belief model (HBM) was developed during the early 1950s, by social scientists at the U.S. Public Health Services. The underlying objective of the model was to understand and analyse the failure of individuals to adopt disease prevention strategies or screening tests for detecting potential health conditions at the early stages. Glanz, Rimer, and Viswanath (2008) underlined that HBM is derived from the behavioural as well as psychological theory and suggests two aspects of an individual's representation of health and health behaviour, i.e., behaviour evaluation and threat perception. The aspect of threat perception is constructed on two beliefs including anticipated severity of the consequences and perceived susceptibility to health problems or illness. The aspect of behavioural evaluation is also based on two different sets of beliefs, i.e., the efficacy or benefits of recommended health behaviour and the barriers or cost of adopting/enacting a particular behaviour. While demonstrating the importance of HBM, Jones et al. (2015) regarded it as a useful model in terms of explaining the behaviour and attitudes of the individuals and groups towards health. They added that the HBM model excellently elaborates health-related behavioural attributes of people, specifically when they find themselves in the susceptible condition, if they believe that disease will have potentially serious consequences, and if they perceive few negative attributes related to health action. In the light of these findings, it can be articulated that HBM offers a holistic view of the behaviours and attitude of the individuals/groups towards healthy practices, health related risks, etc.

It is argued by Glanz, Rimer, and Viswanath (2008) that individual beliefs – health related – are influenced by different modifying factors like knowledge, socio-economic factors, ethnicity, gender, etc. and have a direct effect on an individual's behaviours and health actions. Bartholomew et al. (2001) articulated that HBM attempts to predict health-related attitude and motivation of the individuals to adopt the healthy habit, which is dependent on three factors, including the likelihood of action, modifying factors, and individual perceptions. The individual perception can be understood as the factors that impact one's perception of illness and perceived severity and susceptibility of the disease. However, modifying factors that influence an individual's health related behaviours are cues to action, perceived threat, and demographics variables like age, socio-

economic background, etc. Additionally, the likelihood of action is based on the analysis that individuals conduct by assessing the perceived benefits and perceived barriers to adopt the suggested optimal health action (McKellar & Sillence, 2020). The model suggests that these factors collectively impact the likelihood of bringing changes to the behaviour and attitude of the individuals, specifically associated with adopting healthy habits or preventing potential diseases.

2.1.6.2 Beattie's (1991) Model of Health Promotion Strategies

Beattie's model of health promotion was developed in 1991 and is regarded as the most well-established analytical model. It acknowledges the fact that the notion of health promotion is based on various factors ranging from societal to individual factors while setting out how different practices of health promotion can be utilized. It has been observed that the model, proposed by Alan Beattie, is comprised of four quadrants that are found to be highly helpful in promoting health-related activities. Cornish (2003) explains that health promotion is a modern terminology that is not only associated with educating people - related to health - but also strengthening the individuals to change their living standards. This is usually done by enhancing the supportive community structures, eliminating economic stress, and reducing environmental hazards. To make all these things happen, Beattie proposed a framework that provides the strategic options to conceptualize and plan the health promotion activities (the framework is shown in the figure below).

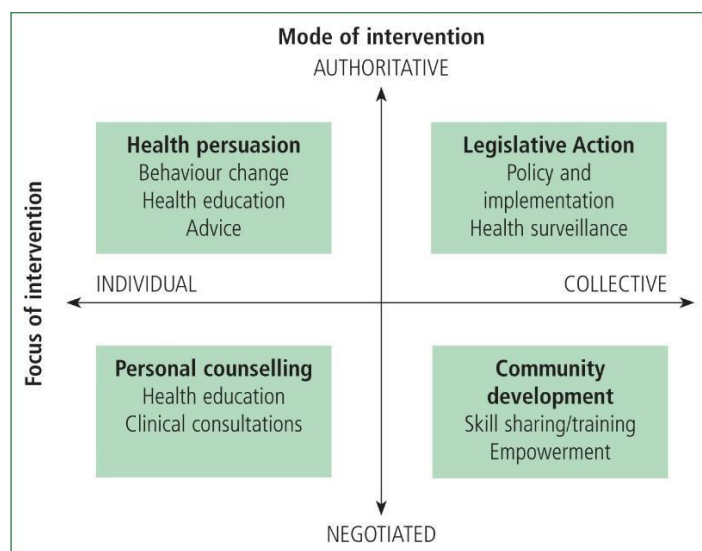


Figure 1: Four modes of Health Promotion provided by Beattie's (1991) (Robinson, 2020)

The quadrants demonstrate two different ways in which health can be promoted by governments, and professionals through different activities. These activities include community development, personal counselling, legislative actions, and health persuasion techniques (Beattie, 1996). On the other hand, axes show 'mode of intervention' that could be negotiated (a bottom up approach) and authoritative (a top down approach) and 'focus on intervention' that can be collective or individual. It has been established from Beattie (1996), health care professionals and government entities primarily work on 'top down' approach specifically by using health persuasion techniques and taking legislative actions. Health care professionals and governmental authorities usually make recommendations and give advice and designs interventions and policies for the practical implementation of the recommendations. The main objective of such initiatives is to protect the health and wellbeing of the communities and individuals. On the other hand, the community development and personal counselling approach revolve around empowering and enhancing skills, understanding, and knowledge of individuals about health and wellbeing. Additionally, various activities are carried out by the 'health professionals' and 'community facilitators' to promote health awareness among the individuals as well as to the whole community. Thus, it can be concluded that the framework presents a comprehensive explanation for the effective implementation of health promotion activities to bring positive changes in the health and wellbeing of the individuals.

It is believed that Beattie's model is a useful tool for the successful implementation of health promotion activities because this model acknowledges that health promotion is rooted in wider cultural and social practices. Additionally, this model also helps in analysing the previous and existing health promotion strategies, and the role played in implementing those strategies (Wills & Earle, 2007). However, according to Oliver and Peersman (2001) there is a limitation of Beattie model as it fails to explain how strategies can be effectively used at the individual level. Earle et al (2007) challenged the assertion of Oliver and Peersman and claimed that Beattie's model of health promotion elaborates the strategies that are fruitful for promoting health among both, the groups and individuals. Earle et al (2007) further contended that the model provides in-depth insights on mapping, which means to record the results driven by applying such strategies on the groups and individuals. Therefore, based on these findings it can be affirmed that Beattie has clearly presented group to individual level strategies that could be applied on the given settings, specifically for practically applying health promotion activities.

2.2 Social Capital and Health Promotion

2.2.1 Social Capital

In sociology, the concept behind social capital dates back to Durkheim, as it was not until the late 1980s that this phenomenon was used specifically for sociological researches by Pierre Bourdieu. Social capital, as identified by Bourdieu, was regarded as the resources which are accessible to the individuals and groups within their social network groups (Álvarez & Romání, 2017; Moore & Kawachi, 2017). However, the work of Bourdieu did not gain much attention as opposed to the concept underpinned by Robert Putman, an American political scientist who put forth a distinct collective approach to social capital (Claridge, 2018). Putnam explained social capital as the part of the society whose value depends upon the norms of trustworthiness, social networks, and reciprocity (Uphoff et al., 2013). Collective social capital is defined as the part of a community's collective property, whereas social capital at an individual level refers to the resources that emerge due to the individuals' capacity of being a part of the social network that provides access to information and support (Thompson, 2018). However, the entire concept of social capital is multifaceted, comprising of social participation, trust, social networks that impact the capability of the inhabitants of a country to cooperate, share, and coordinated actions (Scheffler et al., 2010). Hence, like human capital, social capital also increases the productivity of individuals and groups.

The term social capital became increasingly popular in recent times; however, the term has been in use for almost a century now. The term social capital first appeared in a book in 1916 that discussed how neighbours could supplement each other to oversee schools. It may be hard to come up with a single definition for the term today; however, social capital relates to tangible assets that are important in the daily lives of people. These include sympathy, fellowship, social interaction, and goodwill among the individuals and communities that make up a social unit. The three main categories of social capital include bonds, linkages, and bridges (Keeley, 2007). Linkages refer to the associations with people further up or down the social ladder. Bonds refer to the link based on sharing a common identity like belonging to the same family, culture, ethnicity, friends circle, etc. Bridges stretch the link beyond a shared sense of identity, for instance, colleagues, distant friends, associates, etc. The benefits of social capital depend upon the social bonds. But these bonds can also damage people. For instance, with closely knitted bonds within their communities are

restricted to relying solely on their relatives or people of their community for support which, in turn, limits their economic progress by making them feel like an outsider in a wider society due to their lack of social bridge.

2.2.2 Different Forms of Social Capital

Two important distinctions have been made in the forms of social capital, which leads to two types of social capital, namely structural and cognitive. Cognitive, social capital is the intangible side of social capital as described by Krishna and Shrader (2000), which includes norms of trust, reciprocity, and solidarity. The cognitive dimension of social capital can be explained as the culture or social setting that translates actions of people in a particular situation or social setting. The values, norms, beliefs, and attitudes of cognitive, social capital rationalize cooperative and participative behaviour among people, which reduces the possibility of opportunistic behaviour. On the other hand, structural social capital involves the formulation of activities within the local level networks or institutions (Claridge, 2018). It is generally concerned with the quantity of network membership. Structural social capital is more concerned with facilitating a collective dimension among individuals by making their behaviour more beneficial and predictive. Thus, to state in the simplest way, the cognitive dimension is related to the quality of what people feel whereas, the structural dimension focuses on what people do when it comes to social relations.

From a social cohesion perspective, social capital is distinguished into three forms. The bonding social capital, as discussed above, refers to the closely related ties among individuals. It focuses on protecting and practising close membership with people in the community while mobilising informal solidarity. Its emphasis is on promoting communication and nurturing relationships essential to pursue a common agenda or goal. On the other hand, bridging social capital varies on key personal characteristics. It exercises open membership and narrows the gap between different communities. Linking social capital, however, refers to relationships and associations among individuals from different social positions and power (Bhandari & Yasunobu, 2009). Moreover, strong and weak ties differentiate the social capital on the strength of the social relationship. Strong ties refer to persistency and binding relationships, whereas weak ties refer to temporary and contingent relationships. Social capital is further bifurcated on the basis of horizontal and vertical networks (Van Oorschot & Gelissen, 2006). Horizontal social capital focuses on lateral ties among people with similar social status and power in the community,

whereas; vertical social capital refers to the ties among people on different hierarchical levels and unequal power positions.

2.2.3 Social Capital and Health

Health and social capital are multidisciplinary criteria where the stories are drawn from concepts and theories in the political, behavioural, and social sciences. The social environment is the determinant of health which can either promote or harm the health mechanism. There is a plethora of literature focusing on the relationship between social capital and health, while some researchers have argued about the mediating role of social capital between income inequalities and health (Moore & Kawachi, 2017; Ehsan et al., 2019; Xue, Reed, & Menclova, 2020). Two of the distinct approaches characterizing public health research include the network approaches and cohesion. The network approach depends on the formal social network analysis (SNA) methods to assess the social networks and resources while emphasizing the inequalities with respect to access to social resources (Rostila, 2011). On the contrary, the cohesive approach focuses on the structural or cognitive side of social capital through questions relating to trusting others, views of social belongings and integration, and social participation (Moore & Kawachi, 2017). Social capital is viewed as an ecological-level property with individual-level health outcomes.

Social capital can impact health by influencing mechanisms like attitudes and norms, which mold health behaviours among people and shapes their psychosocial networks. This leads to an increase in their access to healthcare facilities and psychosocial mechanisms resulting in boosting self-esteem (Ehsan et al., 2019). Health behaviours like smoking, alcohol consumption, dietary choices, physical activity, and duration of sleep are among the major determinants of health; however, they are also among the critical determinants of disparities in health among certain groups in the population (Xue, Reed, & Menclova, 2020). For instance, a study conducted in UK and Sweden revealed that participation, social trust, and support were linked to considerable levels of alcohol consumption among people (Nieminen et al., 2013). In health-related research, social capital is linked with informal, horizontal, and strong networks in the social circle. It demonstrates a positive relationship between health and strong, dense, horizontal networks, particularly in relation to mental health concerns. From a dominant perspective, strong informal connections are regarded as good for the overall health, yet these

bonds can lead to constraints within the relationship leading to envy, disappointment, and conflicts that consequently results in poor impact on the health (Ferlander, 2007). In a poverty scenario, people have limited options and choices regarding whom to depend on, leading to oppressive relationships. Thus, social capital serves as a catalyst of coordination that is vital to achieving fruitful social and economic outcomes (Rocco & Suhrcke, 2012). Hence, the more extensive a person's interaction with society, the more likely he/she can access information regarding the prevention and cure of health disease in a cost-effective manner.

2.2.4 Health and Collective Social Capital

The concept of collective social capital translates the non-exclusive nature of social capital and ensures equal and even distribution of benefits for everyone in the society irrespective of their type of social connection (good, poor) or their association with the social capital area (high,low). The community formed, therefore, exist on strong associations among individuals who are able to put public good before private (Eriksson, 2011). Each citizen has an equal obligation of reciprocity. The present connection between collective social capital and health was first developed by Wilkinson (2002), who revealed that health and life expectancy was better for countries with a low degree of income inequality. He explained that social cohesion in equal societies is more which leads to a positive environment of trust among citizens. Similarly, unequal societies tend to have a greater difference among them, which leads to creating mistrust among the citizens and reduces social cohesion (Eriksson, 2011). Thus, collective social capital inspires health by prompting the behaviour of people and reiterating their access to healthcare services and psychosocial processes.

A possible key pathway between health and social capital is that social capital plays a mediating role between health and income inequality. Income equality is among the key factors found to encourage social cohesion among societies (Glanville & Story, 2018). Societies where income equality is practised experience increased social cohesion along with influencing the level of public investment to facilitate tasks like housing and healthcare. Similarly, communities that are rich in social capital tend to influence the policymaking and political decisions that tend to spread the healthy norms in the local society (Eriksson, 2011). Environments build on trust, mutual support, and participation creates health enabling communities that support health-enhancing

behaviours. Hence, health and collective social capital empower the individual to take control of their everyday living through facilitating positive behavioural changes.

2.2.5 Linking Social Capital and Health Promotion

Social capital has been linked with health in a myriad way. Firstly, it explores the notion that the creation of a meaningful connection within a community result in benefitting health and related services. Secondly, it translates that social cohesion in the world of rapid advancement preserves health for every individual in society. Lastly, it highlights that social capital facilitates community self-help which results in allowing communities to solve health problems collectively (Wakefield & Poland, 2005). Community integration is important because it builds a strong, cohesive society which is seen as a first step in achieving community development outcomes. Similarly, public involvement in health promotion is central to achieve health promotion goals to develop a healthy and sustainable community. At the individual level, norms about social capital force people to behave in the right manner, while solidarity creates a willingness to help others (Moore & Kawachi, 2017). Social support can positively influence health by eliminating stress, while lack of support negatively affects health by increasing stress on the support provider. The different forms of social capital, that is, bridging, linking, and bonding, is a useful tool in determining the types of networks available to different people, which helps in making interventions by acknowledging the risks associated with unequal dispersion of return and investment across social networks in terms of involvement. At a community level, social capital contributes to developing a framework and designating a starting point in creating a supportive health environment (Eriksson, 2011). Furthermore, the varied types of bonding, bridging, and linking social capital emphasises on the importance of balancing the social networks that help in the emergence of action procedure for individuals within and across communities.

The improvement of health lies not only in the individual behaviour rather but is also associated with behaviours of others in the community and their ability to effectively engage in communication within the social network. This idea is known as the social network intervention within health promotion. The notion that social capital accessibility is related to the quality of living indicates that strengthening individual social capital could be a positive sign in accomplishing health promotion strategy. Nevertheless, social capital distribution differs amongst different social groups should also be kept in mind (Eriksson, 2011). Therefore, designing health

interventions require awareness regarding the employment of unequal opportunities among individuals to join a network. Social capital can also contribute to health promotion by facilitating more knowledge regarding the social network interventions specifically designed to meet the targeted needs of the people. Encouraging the participation of community members is seen as the distinguishing theme in health promotion as it leads towards the goal of empowerment and sustainability.

2.3 Health Promoting Schools

2.3.1 Health Promoting Schools and their Role

Health-promoting schools can be understood as the ones that promote both – learning and health by involving leaders, teachers, students, and the community. Primarily, these schools are focused on ensuring the provision of a good environment, nutrition, and physical education for the students. Moreover, health-promoting schools also assist in the implementation of practices and policies that are fundamentally important for the wellbeing of individuals. Lee (2002) affirmed that the health-promoting school approach was first introduced in 1982 with the aim of addressing the healthcare needs of the students, staff, and community while promoting optimal practices that could protect them from communicable and non-communicable diseases. Marks, Samdal, and Rowling (2011) articulated that the emergence of this concept – i.e., health-promoting schools – resulted in recognizing schools as the settings that are responsible for the well-being of the whole community; however, it is important to note that it requires the strong dedication of the whole school including staff, authorities to successfully implement systematic and organizational change. Karkada (2016) also supported the idea by claiming that health promotion schools strive to enhance the health of children, teachers, and other personnel (community members), by spreading health-related knowledge and awareness. While highlighting the importance of health-promoting schools, Strong et al. (2005) reported that chronic non-communicable diseases account for thirty-five (35) million deaths worldwide which is quite alarming. Authors have identified the major causes as the high level of cholesterol, obesity, cigarette and alcohol consumption among young people and even school-going children. Strong et al. (2005) affirmed that the issue of non-communicable chronic diseases could be controlled through the widespread adoption of health-promoting school's approach. Therefore, the core objective of health promotion schools is to ensure and sustain positive changes in the well-being of individuals.

While demonstrating the role of health-promoting schools, Langford et al. (2015) said that these institutions introduce novel concepts and ideas to the children and young people that alter their habits and perception towards health. Authors further added that health-promoting schools equip pupils with the kind of knowledge that empowers them to make healthy decisions. In the same context, Niranjana and Gamboa (2017) also pointed out that health-promoting schools tend to make huge contributions in reducing the 60% burden of chronic diseases, specifically by giving them a healthy social and physical environment, developing and promoting health-related policies, and creating a link between community, health care professionals, teachers, and schools. Most importantly, as per Schools for health.org (2013), health-promoting schools can also result in positive educational outcomes, mainly due to the reduction in substance abuse, improved physical activity, and enhanced mental health awareness. Thus, health-promoting school programs have overwhelming benefits that can improve the well-being of the children and the community.

It is argued that health-promoting school programs offer tremendous benefits for the healthy lifestyle of children and the community. Fung et al. (2012) articulated that in addition to the academic improvements that health-promoting schools bring in the lives of children, they can also positively influence the behaviours of the children. Authors have proved this statement by giving an example of the Annapolis Valley Health Promoting School Program that was launched in 2005 and has positively influenced student's behaviour in terms of understanding the consequences of having excessive bodyweight. This program has been recognized as the best approach in Canada to improve the health of children and protect them from the medical complications that occur due to obesity. In a similar context, Aladakatti et al. (2019) elucidated that health-promoting schools, with the help of teachers - implements mind-body interventions that significantly reduce the level of stress, anxiety, and depression among children and improves their learning outcomes. Therefore, one cannot deny the benefits of the health-promoting school programs, which are not only limited to the children but also the entire community as well as the teaching staff.

2.3.2 Health Promoting Schools – A Global Approach

Jain et al. (2019) opined that the health-promoting schools' approach was first proposed by the European Regional Office of WHO, the Commission of European Communities, and the Council of Europe, who joined hands for implementing the approach of health-promoting schools

in the region of Europe. Since then, the concept has been adopted by several countries worldwide with slight changes in the names like Australian Health Promoting School Association and Comprehensive School Health Guidelines in North America (Leger et al., 2007). It is significant to bring to the notice that in almost all of the countries, health-promoting schools work on three basic concepts. These include the incorporation of health education in the curriculum, optimization of the school environment, and assurance of essential community interaction. However, as analysed by Deschesnes, Martin, and Hill (2003) in the United States and Canada, the health-promoting schools' approach is based on eight components, including school environment, physical environment, food services, health education from grade 1-12, counselling of student, staff health promotion, community integration, and school-based health services. This serves as the holistic approach, which is not just restricted to classroom settings but it also encourages the active involvement of the entire community for endorsing a better and healthy lifestyle. It has been observed from the mentioned research findings that in developed countries like Australia, the US, Canada, North America, etc., governments are striving to formulate and implement an effective health-promoting school approach for reaching their social, educational, and economic outcomes.

Health-promoting schools are an innovative and creative approach that involves complex multi-factorial domains such as school, curriculum, and external communities. This is the reason why such a system is not having promising implications in low-income or developing countries. Rentala et al. (2019) articulated that there is a lack of studies that are based on the concept of health-promoting schools in India (i.e., a developing country), which shows that country is still struggling in the implementation of this concept. This shows that there is a need for extensive research on health-promoting school's implementation in a highly populous developing country that is more prone to diseases. In particular, children belonging to such countries are more vulnerable to cardiovascular diseases, respiratory diseases, cancer, and diabetes, mainly due to poor living conditions and scarcity of basic healthcare facilities. In a similar context, Macnab, Stewart, and Gagnon (2014) stated that children – belonging to African countries – face extensive health challenges due to a lack of awareness and poor availability of health care services. The author argues that Africa is having one-quarter of the world's population between the ages of 10-24 years who are at high risk of chronic diseases. Patino-Fernandez, Hernandez, Villa, and Delamater (2013) also presented evidence that shows that there is an extensive prevalence of

obesity among Hispanic and African American children. Therefore, to prevent metabolic and obesity-related syndromes, it is essential to promote healthy habits and lifestyles at an early age, which is only possible through health-promoting schools—considering the severity of the situation, WHO is doing affirmative efforts – specifically by promoting the health-promoting school approach. It is anticipated that it will improve the health literacy rate of children, teachers, and communities that would eventually control the spread of these chronic diseases among individuals. Therefore, it can be inferred that the health-promoting schools’ approach is in its struggling stage in the developing countries and need extensive measures and investment in this area to support the health and wellbeing of the pupil.

2.3.3 Implementation of Health Promoting Schools

Keeping a holistic perspective on children’s physical, social, and emotional dimensions of health, knowledge regarding the influence of health determinants in children’s ecosystems becomes more evident. One effective strategy to ensure children’s health and well-being is to reduce the health inequalities prevalently. This strategy is increasingly relevant in a school setting. The focus of a child’s and public health must revolve around improving health literacy, creating a supportive and conducive physical and social environment, and bringing about behavioural health changes. Similar is the role of the World Health Organisation’s Health Promoting School initiative (Lee et al., 2019). It aims to provide a structure and moving beyond individual behavioural change to transform schools’ physical and social environment. The initiative further involves revising the school curricula, learning, and teaching methods. World Health Organisation Ottawa charter school has been recognized as an important setting for the promotion of health. Gugglberger and Dür (2011) stated that countries like Europe, Austria, etc., have developed networks for the successful implementation of effective health-promoting schools. However, authors have also observed that an implementation gap still exists in developing regions of the world like in India, African countries, and others that eventually limits the implementation of health-promoting school’s ideas. For the sake of countering this problem, Gugglberger and Dür (2011) suggested considering a capacity-building approach that aims at developing the necessary prerequisites for successful and sustainable health promotion programs. These prerequisites could include national or international leadership, school policies and structures, external and internal cooperation, personnel and financial resources, evaluation, and political support. In a similar context, for

implementing the interventions of school-based programs, Marks, Samdal, and Rowling (2011) have suggested the greater use of theory or previous researches to achieve fruitful outcomes. For this purpose, Marks, Samdal, and Rowling (2011) have proposed the three core implementation strategies that can be useful in this regard. The first strategy suggests taking such health-promoting initiatives that are in line with the overall vision and mission of the school. Moreover, the second strategy focuses on engaging the teachers and school to ensure their commitment towards the implementation of the program. At the same time, the third one includes enabling the schools to conduct required actions – specifically through the optimal allocation of time and resources and professional development of the teaching staff. In the same context, Jürgensen and Petersen (2013) did their research on the schools that were promoting oral health in school and found that the three strategies given by Marks, Samdal, and Rowling are similar to Gugglberger and Dür (2011) capacity building which is a complete fact in reality. All in all, schools facing different barriers like limited finance, unskilled human resource, and lack of leadership and governance tend to face difficulty in implementing health-promoting schools. Therefore, it needs equitable school policies, a safe learning environment, and skill-based health education for the successful implementation of effective school health-promoting programs.

2.3.4 Effectiveness of Health Promotion Schools in Addressing Children’s Health Issues

Health related issues, specifically among children, have become a pressing issue for the countries for which schools have started promoting health related campaigns and programs to ensure the health and well-being of the students. The study of St Leger (1999) highlights that the notion of health promoting schools are serving as a promising framework that offers productive health outcomes among children, in terms of improving their physical and psychological health, personal hygiene, educational outcomes, pupil skills, etc. In particular, the concept of health promoting schools utilizes holistic models of health that includes the interrelationships between the environmental, social, mental, and physical aspects of health. More specifically, it encourages the families, local community, teachers, students, and governmental entities to promote health among children and prevent them from any kind of harm. The following sub-sections profoundly discuss the effectiveness of health promotion schools in addressing health related issues among school going children.

2.3.4.1 Personal Safety

One of the major objectives of health promoting programs, conducted in schools, is to assure the personal safety of the individuals, in terms of preventing them from abduction, sexual abuse, and physical and mental harm. Jamison et al (1998) in similar perspective also affirmed that children studying in such schools that organize health promotion programs are likely to have improved social and mental wellbeing. For example, the schools that organize mental health awareness campaign/program are more likely to control and timely address stress, aggression, etc. among students that prevent them from suicidal thoughts/attempts. While highlighting the effectiveness of health promoting schools in ensuring personal safety, Wurtele et al (1986) also propounded that health promoting schools are capable of teaching the personal safety rules to the students, regarding sexual harassment, physical assaults, etc. Such knowledge improves the ability of the individuals, school going children in this case, to ensure their safety against sexual or physical abuse. In addition to this, it is also found that health promoting schools also play an inevitable role in improving the young children's planning abilities, verbal skills, and ability to get into conversations among the family and friends regarding personal safety concerns. These aspects reduce the probability of personal safety risks that are faced by the school going children. Sex education, abduction prevention programs, physical assault prevention campaigns, etc. allow the students to have a better understanding of the potential safety risks while enabling them to handle them in the most appropriate way. All in all, it can be articulated that health promoting schools are effective in teaching personal safety to their students as compared to the other schools.

2.3.4.2 Accident Prevention

Injuries and unintentional accidents are prevalent among school going children and require prevention and awareness plans to protect children from such incidents. Poland, Green, and Rootman (2000) in this reference affirmed that health promoting schools make a significant contribution in preventing unwanted accidents by providing unique learning settings and by implementing health improvement interventions. While supporting this notion, Orton et al (2016) contended that in health promoting schools; tertiary, secondary, or primary injury prevention education programs are often organized for the students, specifically to prevent them from accidents. Primary prevention programs are aimed at avoiding the situation that could result in injury or accident. On the other hand, secondary prevention program assists in reducing the risk of

injury, even if the event is occurred. Some of the prominent examples of secondary prevention programs include wearing a cycle helmet to reduce head trauma in the event of a collision, a plan to evacuate during the fire incident, etc. However, tertiary prevention program is associated with reducing the harm incurred from an injury, like first aid treatment. This indicates that health promoting schools play an incredible role in preventing the accidents and injuries that are experienced by children.

Watson (2008) also emphasized on the effectiveness and significance of health promotion schools by claiming that health promotion guidelines in the UK based schools resulted in improving student's basic knowledge about traffic rules. This eventually contributed in successively decreasing the number of accidents, incurred by the students. However, Watson (2008) further discussed that the successful implementation of the guidelines was not only due to the efforts of the school staff but also collaborated and created an alliance with the relevant groups and institutions that contributed to the success of the campaign. In the same context, Aldinger et al (2008) carried out a pilot study in the province of Zhejiang. The findings of the pilot study revealed that a number of schools have implemented the health promoting schools' guidelines – presented by the World Health Organization – and observed successive reduction in the number of accidents. Furthermore, the authors articulated that before the implementation of health promoting school programs, children were least aware of the accident prevention techniques which eventually increased after the successful implementation of the guidelines. Based on these findings it can be affirmed that health promoting schools are an effective source to prevent accidents among children.

2.3.4.3 Childrens' Personal Hygiene

Inadequate and poor personal hygiene practices, among children, are found to be one of the biggest sources of communicable diseases and eventually high absenteeism rates and low academic performance of the students. The study of Khatoon, Sachan, Khan, and Srivastava (2017) affirmed that poor hygiene practices lead the individuals, children in the present case, towards communicable and infectious diseases. The severity of the situation can be understood by considering that in Southeast Asia and Africa, approximately 31% and 62% of the deaths are due to infectious diseases, mainly because of poor hygiene practices. In such circumstances, schools

serve as a learning hub that provides awareness and a learning environment to children, regarding essential hygiene practices. Khatoon, Sachan, Khan, and Srivastava (2017) further noted that health promoting schools assist students in understanding the essential practices of ensuring personal hygiene. This eventually leads them towards avoiding diseases, like dental diseases/ poor oral health, worm infestations, skin diseases, and diarrheal diseases that are the outcomes of poor personal hygiene. Booth and Samdal (1997) also affirmed that schools are the microcosms of the larger communities and are helpful for developing healthy and hygienic habits among children. Booth and Samdal (1997) articulated that in Australia, the schools that successively conceptualize the health concept in the student's curriculum are more successful in developing hygiene habits among children. It is due to the fact that such programs teach the children about basic personal hygiene rules, like regarding oral health, general hygiene, etc. While supporting this idea, Khatoon et al (2017) also elucidated that poor hygiene habits are one of the biggest factors that cause communicable diseases among children; however, the schools that teach the students about the ways of maintaining their hygiene play a commendable role in bringing positive change to the hygiene practices of the children. This is easily seen in the schools of Lucknow that students, who receive knowledge from schools, regarding personal hygiene, adopt healthy behaviours at a very younger age while those who did not receive such education were lagging behind. Thereby, in the light of these findings, it can be asserted that health promoting schools are really helpful in providing awareness to children regarding personal hygiene that ultimately protects them from communicable diseases.

2.3.4.4 Improved Physical and Social Environment for Children

Scholars such as Roew (1987) observed that the major health promoting schools' frameworks address the physical environment. The health promoting schools focus on the establishment of adequately lit and ventilated and comfortable buildings while ensuring the provision of toilet and washing facilities, waste disposal facilities, and recycling facilities or use of renewable resources (Young, 2005). Rowe (1987) also supported this idea by stating that the appropriate physical environment of the children, i.e., school, community, etc. considerably reduces the risk of accidents and injury and other health related risks. However, since health promoting schools focus on the provision of a healthy physical environment it substantially reduces the probability of health related risks. Rowe (1987) further propounded that inappropriate

physical environment leads children towards poor health; therefore, health promoting schools take all possible measures to improve the physical environment of children, like providing fresh water, ensuring sanitation facilities, etc. All of these initiatives eventually bring positive health outcomes for children. Besides the physical environment, health promoting schools also offer an opportunity to the children to learn in a peaceful place that eventually result in enhanced educational and health outcomes. Nutbeam, Smith, Moore, and Bauman (1993) observed that health-promoting schools have specific school functions and structures that contribute to the social environment such as verbal and physical violence reduction strategies, discipline procedures, tribal, religious, and cultural celebrations, and support mechanisms for students having learning or physical disability. Such a well-developed social environment does not only improve the physical and mental health of the students but also enhance their cognitive abilities. Therefore, in the light of these findings, it can be affirmed that health-promoting schools ascertain the provision of a healthy physical and social environment for children that bring positive impacts on children's mental, social, and physical health.

2.3.4.5 Enhancing the Collaboration between School, Family, and Health Service

It has demonstrated from the above discussion that health promoting school activities involves the collaboration between the family, school, and health service system to improve the wellbeing of children. The effective coordination between these entities results in developing more efficient pathways for protecting the health and wellbeing of children and their families that result in the creation of healthy communities. Barnekow Rasmussen et al. (2006) affirmed that multidisciplinary inter-sectoral collaboration is being used by different countries of the globe like Ireland through which country successively prevent early school leaving and improves the behaviours of children and parents regarding health concerns. Such cross-sectoral collaboration assists in identifying the health needs of the school community while enabling the health promoting schools to effectively address the identified demands. Barnard et al. (2009) articulated that one of the prominent factors that improve the outcomes of health promoting schools is collaboration between different entities, including school staff, a family of children, health service

providers, etc. It is because this collaboration aids the flow of information, specifically regarding the health needs of children, staff, and local community that eventually lead the concerned entities to develop health schemes and programs, respectively; hence, resulting in the formation of healthy communities. In the light of these findings, it can be affirmed that health promoting schools are efficient enough to enhance collaboration that yields positive health outcomes for the entire community.

2.4 Teachers Beliefs and Practices in Health Promotion

2.4.1 Teacher Professional Identity

Teacher professional identity is defined as the way in which teachers visualize themselves and demonstrate their skills and capabilities to others. In this regard, Sachs (2005) stated that teacher professional identity could be recognized as providing the basis by which teachers frame themselves that how to act, how to respond, and how to comprehend their role. This enables the teachers to know about themselves and their roles and responsibility towards the health of their students and the wellbeing of the entire community. The identity of teachers is predominantly established based on the technical aspects, including subject expertise and management of classrooms; however, it is closely associated with the subject specialisation. This complicates their role in implementing the health promotion and education program as teachers might not necessarily believe or understand their relevance with the implementation of the whole program. This is the reason why in many countries today, the implementation of health promotion and education programs suffers from a low parity rate among teachers in comparison to the teaching of core subjects (Jourdan et al., 2016). Beijaard, Meijer, and Verloop (2004) argue that in previous times, the teaching profession was considered to be more static, but nowadays, it is now transformed into a more dynamic profession while it is impacted by numerous factors. Teachers' professional identity is not only influenced by the technical aspects of teaching. Rather it also depends upon the interaction that takes place between their personal experiences and the socio-cultural context and environment in which they deliver. In other words, now teachers are considered to be the important construct that contributes to the development and implementation of policies. In contrast, Roe (2010) stated that when the teacher's role was transferred from subject specialization to other things, it became challenging for teachers to play their best part in the defined role. This is the reason why teachers suffer from role ambiguity issues and do not perform

well in school health-related initiatives and programs. Resultantly, in several regions of the world, health promotion activities and initiatives suffer mainly due to the low involvement of teachers. Therefore, the clarification of teaching professional identity is necessary for the success and overall effectiveness of the school initiatives.

It has been demonstrated that professional identity is important for any type of career. Komba, Anangisye, and Katabaro (2013) elucidated that many scholars share their view that professional identification is important for the education sector. It is because with the help of professional identity, a person can easily understand his/her role in a certain working environment while creating a strong connection with all the entities that are relevant to the profession. Developing a strong teacher identity in the health profession education context is significantly challenging. It is because teachers take in multiple roles, whereas the environment in which they operate is comparatively less supportive than that of a health practitioner or a researcher. Therefore, a strong teachers' identity enhances their intentions to stay in the health education profession and increases their willingness to contribute to the development of the faculty while also enjoying their role as a teacher (Van Lankveld, 2020). Jourdan et al. (2016) postulated that to develop such connection in the teaching profession, it is important to understand that the professional identity of the teachers is highly influenced by the external environment, technical aspects of the profession, as well as the socio-cultural aspects of the local community. Hence, it is significant for any type of health promotion program to support the teachers in developing the connection between the professional identity and oneself. To develop a deeper connection between the children's health, well-being, initiative success, and teachers, Jourdan (2011) stated that initial teacher education should include the concept of health promotion. Such initiatives would result in fruitful outcomes in terms of letting the teachers understand their identity and role in promoting the health and well-being of their students.

2.4.2 Teacher's Beliefs and School Health Promotion Programs

It is a common perception that different factors such as finances, human resource, leadership, etc. mainly govern the success of health-promoting school programs. However, Young and Currie (2009) mentioned that teacher's perspectives and beliefs are important for the success of school health care programs. This is because teachers are directly connected with

students, parents, and community people in terms of listening to their health needs and educating and engaging them in healthy activities. Therefore, the concerned authorities need to focus on the training of the teachers so that they can build up strong self-confidence and belief that they have the capability of fostering health among the individuals (Gase, Gomez, Kuo, Glenn, Inkelas, & Ponce, 2017). Day and Gu (2010) further explained this notion by stating that teachers usually teach/preach what they believe, so it can be established that the success of health promotion initiatives or programs is dependent on the beliefs and perceptions of the teachers – i.e., about the suitability of their skills as well as the credibility/effectiveness of the program. In addition to this, Day and Gu (2010) also expressed concerns regarding the teacher's beliefs which are sometimes influenced by their values, local and national educational policies, and pressure on teachers to teach the curriculum subjects. However, as per Poudel (2018), some of the teachers believe that they can only deliver and promote health-related knowledge when they have a good level of competence in the areas of physical and mental health. In other cases, teachers tend to show reluctance in ensuring their participation in health-promoting programs. Succinctly, these are some of the factors due to which health promotion programs remain marginal and are not fully implemented. Therefore, it is necessary to provide support to the teachers to positively influence their belief system; hence, encouraging them to play a significant part in the successful implementation of health-promoting school programs.

It is evident that teachers' beliefs, preparedness, opinions, and attitudes have a direct impact on teaching health education or endorsing health promotion programs. Metos, Sarnoff, and Jordan (2019) and Adamson, Mcleavy, Donegan, Shevlin (2006) carried out research to recognize the attitude and beliefs of the teachers regarding their role in nutrition education, personal health behaviours, self-efficacy in delivering nutrition education, and overall effectiveness of spreading this awareness. The findings of the research show that the belief system of the teachers – regarding the effectiveness of the program and their capability to provide nutrition education – directly influences the eating habits of the students. This shows that for bringing about behavioural change in the health-related attitude of the students, teachers are required to have strong belief and confidence over their capabilities of delivering nutrition education. Health promotion and education in schools require a high level of teacher's commitment and engagement with the program, which requires identification of teachers with the health education. Moreover, it is

essential to understand how the teachers conceptualise the concept of health education and promotion. Thus, the creation of a favourable environment with the support of the principal, staff, and teachers' general attitude towards the health promotion program, along with policy factors and training and development, is mandatory (Jourdan et al., 2016). Most importantly, the teachers must also have a positive belief in the effectiveness and importance of the program. In the same context, Perikkou et al. (2015) investigated the teacher's beliefs about the school food environment and their readiness to implement the school-based nutrition programs. Perikkou et al. (2015) found out that one of the major barriers to the successful implementation of school-based health-promoting programs is the lack of teacher's beliefs and self-perception towards the program. For the sake of avoiding this issue, Vamos, Xie, and Yeung (2020) suggested ensuring proper training of the teachers as such self-perceptions are usually the outcome of a lack of knowledge about the health programs. Succinctly, the beliefs of the teachers directly impact the promotion of healthy habits and attitudes in the school setting.

2.4.3 Teacher's Practices in Health Promoting School Programs

Teachers are identified as the important bodies which can bring successive changes in the lives of children and local communities. While discussing the role of teachers in handling and curtailing student's mental health problems, Maelan et al. (2018) stated that teaching staff holds indispensable importance in bringing improvements to the mental health conditions of the students. This is due to the fact that mental health issues usually start at the early stages of childhood and require immediate diagnosis and treatment, which is only possible in such school settings that possess skilled teachers and have strong health-promoting frameworks. According to a Norwegian representative study, every third pupil is suffering from depression, anxiety, and other mental conditions that can be effectively handled through health-promoting school programs. This is the reason that it is the common practice of Norwegian teachers to establish a healthy relationship with their students to improve their mental health. Besides developing healthy relations, teachers also educate the students about mental health issues while encouraging them to openly share their thoughts and opinions. Such practices eventually help Norwegian students to have strong knowledge about mental health issues. Kratt (2019) further extended the idea of Maelan et al. (2018) by claiming that the practice of developing the partnership between the teacher and health care professional also contributes to improving the mental and physical well-being of the students.

Concerning this, Maelan et al. (2018) put forward an idea that the American school teachers are practising the approach of the Multi-Tiered System of Support (MTSS) framework. This approach is deemed to be effective as it allows the teachers to improve the student's mental health within the learning environment. In particular, the system is based on the whole-school approach in which teachers are the primary agents who openly discuss mental health issues with the students while encouraging them to speak up their minds. The efficiency of such practices could be understood by considering that the program resulted in improving the mental health and overall well-being of students in 119 elementary schools of the United States. Thus, such health-promoting practices of the teachers yield positive outcomes in terms of improving the physical and mental well-being of the students.

It has been recognized that teachers hold undeniable importance in bringing healthy change in the lives of the students, specifically the ones that are suffering from obesity and other physical health conditions. Martin and Murtagh (2017) said that in the past few years, primary school students are found to have an inactive lifestyle that eventually makes them obese or overweight. Considering this situation, the WHO has recommended that school-aged children should be involved in at least 60 minutes of moderate-to-vigorous physical activity. For this purpose – as per Martin and Murtagh (2017) – teachers are required to deliver active lessons in the classrooms to change the attitude of the students and urge them to take an interest in physical activities. Authors have mentioned an example of China where teachers - using an active lesson technique in the classrooms - develop the interest of students towards physical activities. These practices have shown outstanding results in China in terms of reducing obesity-related issues among children. Similarly, Maganur et al. (2017) articulated that in India, teachers have recognized the importance of oral health among children. Therefore, to promote oral health among the children, teachers tend to educate the students regarding the concepts of gum diseases, decay, bad breath, stains on teeth, etc., which have dramatically improved the oral health of children. However, Maganur et al. (2017) have pointed out the most important point, i.e., teacher's practices to improve the health of students is heavily dependent on their understanding of the significance of health-related school programs, which can only be done through training. Hence, all the above discussion showed that if teachers' practices can bring tremendous improvements in the mental and physical health of the students.

Fred, Randy, and Justin (2001) said that health-promoting programs require the teaching staff to address the complex developmental, social, and health-related problems of the students. Therefore, to address such complex issues, teachers need support in the form of training and education to better handle the different health-related needs of the students. For this purpose, Fred, Randy, and Justin (2001) have proposed a training program that provides the teachers with the basic skills and knowledge to actively participate in the school health promotion programs. The program offers extensive knowledge to the teachers in the areas of ‘how to apply the National Health Education Standards in the curriculum,’ ‘integrating health-related topics in the curriculum,’ ‘how to engage families, students, and communities for collective well-being,’ etc. In a similar context, Denuwara and Gunawardena (2017) have proposed that teachers need to participate in health clubs, welfare groups and get themselves enrolled in health education courses to improve their knowledge. All in all, government and official support is needed for enhancing teacher’s knowledge to ensure the success of health-promoting programs in schools.

2.5.1 Significance of Health Promotion in Educational Institutes

Health promotion is referred to as the process to improve society, contribute to improving health outcomes, and ensure that individuals maintain the quality of life within the society. Health promotion also includes the provision of specific and explicit strategies to create and cultivate health at an individual, organizational, and community level (Maring & Koblinsky, 2013). The process of health promotion is also referred to as empowerment and improvement (Maring and Koblinsky, 2013). With reference to other previously published evidence, the health promotion approach promotes health. However, despite sticking only to health, health promotion approaches are also committed to social reform, as well as equity (Lucarelli et al., 2014; Adamowitsch et al., 2017). Educational institutes, specific schools, are considered ideal settings for health promotion. The role of schools in the early stages of childhood and adolescence is extremely critical. It builds a personal character within individuals, develops skills, and reinforces attitudes and physique along with extending knowledge. To ensure the fulfilment of the educational, social, psychological, and health needs of individuals in schools, proper training and reinforcement must be provided to the teachers. A collaborative task force consisting of teachers, parents, students, administrators, and health professionals must set the core values, norms, goals, and relevant

activities with an aim to provide a new direction to health education and promotion (Lee, Tsang, & Lee, 2000). Students in higher grades tend to have more psychological and physical health problems due to probably increased workload and a lack of importance on the health education in the curriculum. The research conducted by Adamowitsch et al. (2017) revealed that schools facilitate training the citizens, promote independence, exercise duties, and monitor health-related conditions and upgrade the quality of life by improving the health behaviours of the general population.

Graciano et al. (2019) reported that the teachers provide direction to health promotion programs within the educational institutes with reference to the professional practices developed at school. The health promotion approaches adopted by teachers are also influenced by rules, regulations, environment, and availability of resources of the school. Once health promotion is introduced within the schools, it is considered an essential practice. Health promotion with reference to the schools represents the activities considered for promoting the health and wellbeing of the students, teachers, and other individuals possessing association with the school.

According to Graciano et al. (2019), the impression of health promotion includes reinforcement of the individual capacity, as well as collective capacity for navigating multiple health-related facets. Graciano et al. (2019) analyzed the teachers' perceptions about health promotion initiatives and found that teachers associated health with the knowledge levels of the students. From the perceptions of teachers, the students receiving health promotion-related education have been reported to contribute to the development of the community for acquiring skills for resolving problems efficiently. For this reason, it is significant for the schools to strive to acquire support from community associations and other partner institutions for introducing health promotion practices within the school. With reference to the previously conducted research, health promotion practices have been reported to improve the health resources for children and benefit their academic achievements (Jourdan et al., 2011; Graciano et al., 2019). Concerning the effectiveness of health promotion approaches with reference to the educational institutes, the evidence reported that the approach is effective if it is carried out after the involvement of the entire educational institutes. The collaborative efforts, including the involvement of parents and community members, contribute to changes within the psychosocial environment, skills for personal development. Thus, health promotion initiatives taken from the platform of schools are likely to improve students' health and well-being.

2.5.2 Factors Influencing Participation of Teachers in Health Promotion

The evidence reported that a range of factors strongly influences the appropriate designing of the health promotion programs initiated at the levels of educational institutes (Graciano et al., 2019). These factors include political and contextual factors, the availability of a favourable environment, efficient engagement of the management of educational institutes, involvement of communities, and the beliefs of teachers and educators, regarding their potential involvement within the health promotion programs. The research conducted by Jourdan et al. (2011) mentioned that if a school or educational institute serves as a platform for health promotion, all teachers might not necessarily participate within the health promotion program. The factors which influenced teachers to shape their professional perspectives towards health promotion include their beliefs regarding health promotion, their coherence regarding daily practices, and their perceptions regarding the role played by teachers in health promotion. It was also found that the perceptions of teachers regarding the potential outcomes of their participation in health promotion were also influenced by the behaviours and participation levels of students, the quality of the relationship between teachers and parents, and the general dynamics of school (Jourdan et al., 2011).

The research conducted by Deschesnes, Trudeau, and Kébé (2010) analyzed the factors influencing the implementation of health promotion programs and revealed that teachers having a belief that along with delivering education, they are also responsible for promoting a healthy lifestyle among the students are more likely to participate in the educational institutions-based health promotion programs actively. Moreover, the teachers perceiving that the health promotion interventions delivered from the platforms of educational institutes are likely to provide favourable outcomes are also likely to participate in the health promotion programs actively. Another research performed by Jourdan (2010) proclaimed that the views and perceptions of teachers regarding health promotion possess a strong association with the professional identity of teachers. The implementation of a health promotion program is not a neutral process, such that the process requires a high level of collective involvement of teachers, and other stakeholders, as compared to the usual practices performed by the teachers. For this reason, the potential difficulty experienced by the teachers and the challenges related to collaborative working should not be taken lightly (Jourdan et al., 2011). In case the process of implementation of health promotion programs becomes challenging, it might decrease the motivation level of teachers. The designing of training

sessions that integrate the issues associated with partnership development, networking skills development, and sharing of experiences are likely to facilitate teachers to the development of a more integrated implementation (Jourdan et al., 2011). Thus, a range of personal and professional factors strongly influence the participation of teachers in the health promotion process.

Another research conducted by Ran et al. (2018) revealed that teacher health literacy also has a significant influence on students' health literacy. A teacher's health literacy is referred to as the teachers' capacity to acquire, infer, and comprehend basic health-related information, health-related services, and competence for utilizing information and services to enhance the learning of health-related concepts the students. The health literacy of teachers facilitates the maximization of both ends of the provider-consumer relationships among children and adolescents and teachers. Peterson, Cooper, and Laird (2001) also reported that teachers having responsibility for health promotion must have the ability to communicate with the children and engage children in learning health information. Moreover, the teachers are also required to possess an interest in lifelong learning and continuing education. Similarly, a study by Jourdan et al. (2011) discussed the professional issues faced by teachers, which influences their commitment to a health promotion program. The main factors contributing to the commitment of teachers included their perception of the health promotion program, its relevancy with their role as a teacher, teachers' perceived impact on the program, specific school environment, including a relationship with parents and students' behaviours. Therefore, to successfully implement health promotion education in schools, it is essential that the health promotion program is embedded in the school's mission. The program must make sense to the teachers and to their educational perspective. Thus, the opportunity possessed by the healthcare professionals to acquire training and delivering health education to children also has a significant influence on the efficacy of the health promotion campaign delivered by the teacher. Moreover, implementation processes must be respectful of the challenges and troubles that a school may encounter to ensure smooth delivery of health education and promotion programs and by extending help in addressing teachers' concerns and perspectives regarding the HP programs.

2.5.3 Intersectoral Collaboration in Health Promotion and Increasing Teacher Agency

Clelland, Cushman, and Hawkins (2013) reported that the health promotion school initiatives require the collaborative efforts of schools, parents of school-going children, and local community members. Moreover, Kwatubana (2014) proclaimed that meaningful community participation is crucial for the model of health promotions implemented within the schools. The participation of the community is analyzed in terms of the involvement of processes, as well as activities, to empower the population for making decisions, perform actions by working in collaboration with the stakeholders regarding the health and promotion-related problems (Kwatubana, 2014). The multidisciplinary, intersectoral, and collaborative healthcare approach is essential to implementing the constitutional foundation laid by the World Health Organisation (WHO). The WHO had proposed a range of school health-related programs within the agencies. For instance, the Global Health Initiative introduced by WHO is vital in the advocacy for the school policies and programs in several countries. Several countries have introduced initiatives for improving the health and wellbeing of the children enrolled within schools. For instance, in the year 2012, the government of South Africa introduced an integrated school health policy, which aimed to improve the health of school-going children, as well as their respective communities (Ramukumba et al., 2019). The objectives behind this policy were to provide a guideline regarding the provision of health services.

According to Ramukumba et al. (2019), the Integrated School Health Policy (ISHP) implementation requires an intersectoral collaboration of the Department of Health, the Department of Social Development, and the Department of Basic Education. All these departments and the educational structures, including the teacher union, school governing bodies, academic institutions, partner organizations, and teacher unions, are also anticipated to participate in the development of comprehensive school programs. The research conducted by Ramukumba et al. (2019) described the compliance levels of the schools situated within the city of Tshwane to ISHP by considering 25 (N) schools within the special category catering for children with disabilities. The questionnaire survey was performed to determine the extent of compliance to the application of ISHP within the selected schools. The research outcomes revealed that there was an insufficient integration of stakeholders within the school health program at the schools located within Tshwane. Ramukumba et al. (2019) also found that the lack of cooperation and

collaboration with the stakeholders while delivering the school health service will contribute towards a fragmented, unsustainable, and uncoordinated style to the ISHP program execution. This lack of collaboration is likely to result in either no or delayed detection, as well as interventions within the cases of psychosocial, mental, and health-related challenges.

According to the available evidence, teachers play a significant role in assuring an intersectoral collaboration. With reference to the available evidence, teachers can adopt several approaches for implementing the health promotion approaches within healthcare. According to Graciano et al. (2019), the teacher can bring innovation for improving their agency in health promotion by offering specific projects, such as vaccination campaigns, activities focused on oral hygiene, awareness regarding the significance of taking a balanced meal, and awareness campaigns related to the significance of separating recyclable trash. Moreover, Spotlight (2013) recommended that the interventions utilized within the health promotion campaigns are required to include the interventions for assuring learners' participation within the schools and other educational institutes and communities. The ISHP acknowledges that successful school health programs are likely to be based on the partnership between the education and the healthcare sector, teachers, health workers, community groups, schools, and other stakeholders (Spotlight, 2013). According to Ramukumba et al. (2019), the implementation of innovation within the teacher agency in health promotion requires collaboration between the national as well as the provincial department of health for supervising the individual, as well as collective efforts made by all parties involved within the health promotion program. The research conducted by Ramukumba et al. (2019) analyzed the efficacy of health education on the perceptions of the pre-service teachers in teaching, as well as integrating the health education activities for nurturing the health literacy of students. The perceptions of pre-service teachers were examined, and it was found that the delivery of intervention of health education of one health education course might benefit the general education teachers for increasing knowledge and preparing to teach school health. However, ongoing training is essential for the success of educational interventions. Murray et al. (2007) carried out a systematic review of the evidence assessing the association between health programming, as well as academic achievement, and suggest the manner in which health promotion campaigns carried out via school platforms are likely to give beneficial outcomes. Success in schools and the years of schooling are the major factors contributing to determining social as well as occupational status within adulthood. Murray et al. (2007) found that health

education and parental involvement is likely positively influenced by the health education program. However, there is a significant requirement for training the staff to ensure their active involvement in health promotion. Thus, with reference to the available evidence, the intersectoral collaboration in health promotion and increasing teacher agency within health promotion is likely to provide benefits for promoting students' health and well-being.

Health promotion has become essentially important to support the health and wellbeing of every individual in the community. In such a scenario, intersectoral actions are important to tackle this public health crisis. The mobilisation of collaborative actions involving society and government is crucial. The ability to accommodate people to provide care outside hospital settings will not only reduce the pressure from hospitals but will also allow the community to better respond to the pandemic challenges. Thus, an evident need to strengthen the resilience of public health and social service is required. The role of health-promoting settings like health-promoting schools operates in the supportive capacity to empower and protect the teachers, students, and other staff members along with the broader community (EUPHA, 2020). Similarly, health literacy programmes in health-promoting schools help in understanding, appraising, and applying the best available knowledge and skills to cope up with the health threats. Thus, during these turbulent times, health-promoting schools can foster health, literacy, and learning among children as they are considered as the silent transmitter of the virus. By engaging health and education representative, including teachers, teachers' unions, parents, students, health care officials, school nurses and community leaders, schools can be made a healthy place, and student's wellbeing can be maintained by addressing related concerns.

2.5.4 Impact of COVID-19 on School Health Services

Limited scientific evidence reveals that the COVID 19 virus is less severe among children than adults and that the children may experience mild symptoms in comparison to adults; however, there is no potential evidence that explains the role of children in transmitting the disease (Brough et al., 2020; Wu et al., 2020; Pokorska-Śpiwak et al., 2021). Nonetheless, well documented scientific evidence in history reveals that children are among the major transmitter of diseases such as the spread of respiratory infections due to their close interactions with others in the school setting. In the mass influenza epidemic, children between the ages of 5 till 17 were among the most important transmitter of the disease. Recent research reveals that children do get affected with

COVID 19; however, due to the low level of symptoms, they are considered as the silent carriers of the virus (Gray, 2020). This section discusses the effects of the COVID 19 pandemic on school health services. The concept of health-promoting schools has been found effective in improving the health and wellbeing of children in schools, along with helping teachers and the learning process (Lee et al., 2020). Since health-promoting schools are a complex intervention of school environment, curriculum, and community, they can be fruitful sources in the spread and prevention of COVID 19 disease. The main considerations regarding school-related public health measures include the risk-based approach in regard to school operations. The general principles to prevent the transmission of COVID 19 and to minimise its spread in the absence of a vaccine or medicinal drugs is to practice hygiene in schools, including frequent hand washing, social distancing, and teaching cough etiquettes to young children. These practices in schools can serve as the major weapon against the COVID pandemic. Health messages that are fun, positive, entertaining, engaging, and humorous and provide age-related information are considered as the important feature when targeting school children as a part of health-promoting school's agenda. Amidst the pandemic, schools are required to maintain a safe, appropriate, and adequate education as well as social learning and development of children. To ensure effective delivery of school health services, institutions must minimise the risk within the school and its associated settings to contain the transmission of the virus among teachers, children, and other staff members. Limiting physical classroom interaction are effective means to guard the schools against becoming an amplifier for the spread of the COVID 19 virus in the community (UNICEF, 2020). School-related public health and safety measures must be integrated effectively to support the implementation of public health services at the community level.

Some basic principles can be followed by school administrators, teachers, and other school staff to ensure school public health in the pandemic. To ensure a healthy school environment, schools must restrict sick students, teachers, and other staff to enter school vicinity. A regular hand washing regime must be followed with soap and water along with the use of hand sanitizers where necessary and ensure wearing of facemasks at all times. Daily disinfectants must be used to clean the school surfaces. In addition to these measures, schools must provide proper water, sanitation, and waste management facility and follow an effective decontamination procedure. In addition to these measures, government prescribed measures like maintaining a social distance

must be promoted at all levels. The turbulent times of COVID 19 have also emphasised the importance of implementing targeted health education in schools. Schools must integrate activities and lessons related to disease prevention and control in accordance with students' age, ethnicity, and disability responsive content in the existing course work (WHO, 2020). Furthermore, students must be encouraged to ask questions and concerns related to the pandemic to ensure their psychological health. Teachers must make sure that the information provided is honest and age-appropriate in every manner. Teachers must also be equipped with information about local resources to maintain their and student's health and wellbeing. For students who exhibit signs of distress, teachers must be trained to lend their support to such students.

Apart from these general considerations that are extremely important in their own places, there are certainly other considerations that school communities must be addressed to ensure public health safety and services. These include safeguarding students with chronic illness or high-risk medical conditions. Since these children are more vulnerable to the pandemic, it is essential that schools must accommodate their safety extensively. This requires a collective opinion involving school staff, school nurses, and pediatricians to take the decision regarding the return of such students, whether in-person, blended or remote. To ensure the health and wellbeing of students, schools must evaluate each child with an Individualised Education Program to extend services essential for the return of students back to the physical school setting (American Academy of Pediatrics, 2021). For instance, students with disabilities may face a harder time in transitioning back to in-school learning due to less access to physical or speech-related therapy or mental health counselling. Schools health provider must also remain up to date regarding children's immunisations, including flu vaccinations during a pandemic. Schools must also train teachers in identifying signs of anxiety in students. Some students might be feeling stress or grieving a loved one which might affect their mental health. Such students must exhibit such behaviour that needs instant addressing and support. In addition, schools must provide nutritious meals to students through school meal programs even if the school is closed or the student is not attending due to sickness.

2.6 Chapter Summary

Health promotion is an increasingly prominent topic that is regarded as the process that allows individuals to take control of their health and wellbeing. The main idea behind the concept of health promotion is to assist people to change their lifestyles and switch towards those habits that prevent disease and improve health. According to the WHO, implementation of health promotion in school settings can help foster improved learning and wellbeing of students, school staffs, and the local community as well. The education and health are found to be linked with each other, which is mainly because healthy individuals are likely to learn more effectively. Health promotion activities reduce the risk of ailments and injuries, which is associated with deteriorating learning capabilities and absenteeism. Health promotion is also linked with reducing the risk of transmissible and chronic diseases in children that affects their academic performance. The involvement of multiple stakeholders, including teachers, school staff, hospitals, researchers, and the community, plays an increasingly vital role to increase health literacy and child wellbeing. Schools are considered as the key player in solving the health problems of society. It provides a supporting physical and social environment providing children with a better chance to learn more effectively. The school environment consists of the classroom layout, psychosocial factors, maintenance, atmosphere, student engagement, and the relationship between teachers and students.

Social capital is a function of people who live together in a community or society which allows effectively functioning. Health and social capital are multi-disciplinary concepts that are drawn from behavioural, political, and social sciences. Social capital has the capacity to impact the health of people by influencing their attitudes, beliefs, and norms, which shapes their behaviour. Likewise, social capital influences also allow a pathway between health and social networks that impacts health behaviours like dietary choices, smoking etc. However, the establishment of social capital is only possible only when individuals in the community extend their efforts towards strengthening it. Social capital helps in creating a beneficial connection within a community that supports the delivery of health services. It further allows the community to facilitate self-help and solve health-related problems collectively.

The role of health promoting schools is to promote learning as well as health by involving leaders, students, teachers, and the community. Health-promoting schools introduce the idea of novel concepts to students that change their perception and habit towards health while also

resulting in positive academic outcomes, improved physical and enhanced awareness regarding mental health. Health promoting schools encourages personal safety, accident prevention, and personal hygiene of children. Since teachers are directly connected with students, parents, and the community in terms of educating them regarding health, their perception, and beliefs concerning the school health care program is pivotal for its success. Thus, the process of health promotion is referred to as empowerment or improvement that improves society while contributing to improving health outcomes and ensuring that the individuals maintain a quality of life within a society.

CHAPTER 3: RESEARCH METHODOLOGY

The chapter presents the methodological approach adopted for accomplishing the research aim, questions, and objectives. In particular, the chapter details the information about the adopted research approach, research strategy, research design, data collection tools/instruments, sampling technique, data analysis, rigor, and trustworthiness of results. In addition, the chapter also highlights the study limitations and research ethics that were considered during the accomplishment of the research.

3.1 Introduction

To successfully achieve the stated objectives, it is important to adopt particular methodological approaches, i.e., research philosophy, approach, purpose, design, and data collection and analysis techniques. Goundar (2012) also presented the significance of research methodology by stating that it assists in systematically solving the research problem. Conducting research is one of the complex tasks that require the selection of suitable approaches, data collection, and analysis techniques. Considering the importance of research methodology, the current study has also chosen a specific research approach, research philosophy, research purpose, research design, data collection tools/instruments, sampling techniques, and data analysis techniques which are comprehensively demonstrated in the proceeding sections. The rationale for selecting all methodological approaches is also provided using pertinent literature.

3.2 Research Philosophy

The research philosophy represents the perceptions and opinions of the researcher regarding the way in which data – concerning the topic of the study – should be acquired, analyzed, and utilized, it is vital to establish the philosophical viewpoint in the research study. According to Saunders, Lewis, and Thornhill's (2009) interpretation, a researcher's research philosophy is a representation of the researcher's individual perceptions and ideas on the world. To put it another way, research philosophy provides the researcher with the tools necessary to convert ideas into knowledge within the scope of the inquiry. Saunders, Lewis, Thornhill, and Bristow (2015) wrote in the same article that an appropriate philosophy should be chosen during the research process since it leads the development and selection of the research approach. This article was found in the same context. Additionally, Guba (1990) asserted that a research paradigm is not complete without a research philosophy as one of its central concepts.

represents the fundamental assumptions and preconceived notions that are related with the research problem. It is essential to be aware that there are generally four distinct philosophies of research. These philosophies are primarily differentiated by the ontology, epistemology, and technique of the research studies that are carried out by the researchers. The selection of research philosophy is dependent upon the research objective which is either associated with solving any particular problem or filling the knowledge gap in the literature of the selected topic. In order to answer the aim and objectives of the present study, carefully formulated research objectives and questions have been answered in the research instrument provided which are primarily linked to documenting and evaluating the extent to which primary school teachers in rural settings are positioned to use inclusive innovation principles for protecting the health rights of the children. It means that the research is inclined towards interpretivism which is a socially constructed approach that assess reality and researcher's perceptions are inseparable and subjective. The literature gap was analysed in order to unearth and bring in new data to the body of knowledge. Interpretivism hence is appropriate approach to create richer and new understanding and the interpretation of the world. Considering its suitability, the current study has adopted interpretivism to make praxis-oriented recommendations for inclusive innovation practices by educators in advancement of child health rights and reduction of their vulnerability by the primary schools of Botswana.

3.3 Research Approach

The research approach can be understood as the procedures and the plans for research that include several steps, ranging from broad assumptions to detailed methods of gathering, analysing, and interpreting data. McCusker and Gunaydin (2015) argued that research approach assists in making decisions regarding philosophical assumptions that can be made in the study; inquiry procedures (i.e., research designs), as well as a particular method of data collection, analysis, and interpretation. Creswell and Creswell (2017) articulated that the research approach has three main types that include qualitative approach, quantitative approach, and mixed approach. In association with the considered philosophy, a qualitative approach is selected. Queirós, Faria, and Almeida (2017) affirmed that the qualitative research approach is associated with understanding and exploring the meaning that groups or individuals ascribe to a human or social problem. The qualitative research approach primarily involves emerging questions as well as procedures. However, the data is gathered in the participant's settings, which is then inductively analysed and

interpreted from particulars to general themes. In more precise words, the qualitative research approach involves an in-depth analysis that is more narrative and descriptive. On the other hand, the quantitative research approach is associated with testing and assessing the objective theories – specifically through the examination of the relationship among variables. Watson (2015) elucidated that the quantitative research approach involves a range of methods for the systematic investigation of research phenomenon. Yates and Leggett (2016) argued that, unlike the qualitative approach, the quantitative research approach is based on deductively testing the theories, controlling alternative explanations, avoiding research bias, and facilitating the generalizability of the findings. Lastly, a mixed approach of research involves the collection of both qualitative and quantitative data, incorporating two types of data and utilizing different designs that may include theoretical frameworks and philosophical assumptions. In other words, the mixed approach integrates the features of both quantitative and qualitative research approaches and provides convergence, correspondence, and corroboration of results (Creswell, 2013). The main objective behind utilizing this approach is to ensure a comprehensive understanding of the phenomenon/problem under consideration. While demonstrating different research approaches, Bernard and Bernard (2013) contended that the selection of the research approach is dependent on the nature of the problem that is intended to be solved/addressed by the researcher, personal experiences of the researcher, or the audience of the research (see Table below). Considering this, the following table explains the differences in the three research approaches:

Table 1: Research Approaches (Saunders et al, 2015)

	Qualitative Approach	Quantitative Approach	Mixed Approach
Framework	It is associated with exploring the phenomena.	It is associated with rejecting/confirming the hypothesis.	It is the combination of both quantitative and qualitative approach; hence, it deals with hypothesis testing as well as exploration.

Objectives	To demonstrate the experiences and norms of the groups, variations, and their relationships.	To predict the relationships, quantify variations, and demonstrate characteristics.	The approach involves both describing and predicting relationships.
Methods	Emerging methods	Pre-determined	Both predetermined and emerging
Data Format	Textual	Numeric	Both textual and numeric
Instrument design/type	Include semi-structured methods, i.e., participant observation, in-depth interviews, and focus groups.	Highly structured instruments/methods like structured surveys, questionnaires, and observations.	Both semi-structured and structured methods.
Question format	Open-ended	Closed-ended	Both, an open- and closed-ended
Data Analysis	Image and textual	Statistical analysis	Text and statistical analysis

The rationale for selecting the qualitative research approach is that it assists in gathering and analysing the behaviour and thoughts of human beings, in a social context. In this study, qualitative data research was used, and the major objective was to make use of the descriptive and conceptual findings collected through interviews to gather in-depth insights on the responses provided by respondents. These observations have been compiled. In particular, the present research requires the assessment of teacher's beliefs and practices as well as their role in promoting health among primary school students in Botswana, which is only possible through the analysis of thoughts of the research participants (teachers). Denzin and Lincoln (2005) further claimed that the qualitative approach allows the researcher to study and analyse a particular phenomenon / subject in their natural settings while trying to make sense of or deducing any phenomenon in the context of the meaning that people bring to them. In other words, qualitative research mainly focuses on the perceptions and opinions of the entities – regarding the processes – instead of relying on experiments or any other method of data collection. Since the present research also intends to assess the level of knowledge and perceptions of primary school teachers

about health promoting schools and the provision of health services, a qualitative approach is deemed to be more suitable. The selection of qualitative approach for the current research is also validated by Kline (2006) as it gives the researcher the perspective and opinion of the participants through immersion in a situation or culture, which is also evident in the current study where the researcher has collected primary school's teachers' beliefs and practices regarding health promotion. The core objective of the qualitative research has assisted in increasing and enhancing insight into the perceptions and opinions of the teachers about health promotion schools, their significance, and their role in enhancing the health and wellbeing of the children. Another factor that is involved in the selection of a qualitative research approach is that it facilitates participant observation, direct observation, and open-ended and unstructured interviewing (Saunders, Lewis, & Thornhill, 2009). These methods assisted the researcher in understanding the perception of the teachers about the current health conditions of the children and the importance of health promoting schools. Precisely, the subjective nature of the qualitative approach – i.e., collecting and analysing the perceptions of the participants (teachers) about the promotion of health and wellbeing of the children in primary school settings made it suitable for the current research.

3.4 Research Design

Research design can be understood as the overall strategy of the study. It sets the guideline as well as the methods that are required for carrying out the study (Morgan, 2017). In accordance with Bryman and Bell (2015), the research design is a process or plan through which objectives of the study can be achieved as it elaborates details about data collection tools, sources of data, and analysis techniques. While supporting this idea, Saunders, Lewis, and Thornhill (2009) further expanded that an effective research design does not only assist the researcher in achieving the stated aim and objectives but also help in gathering reliable data on the topic. Research designs are of different types and include meta-analytics, review based, semi-experimental, experimental, correlational, descriptive, etc. and their selection is dependent on the research purpose. Moreover, research design can also be characterised based on methodological approaches (i.e., qualitative, quantitative, and mixed design). Different types of research design characterised on the basis of research methodology or approach are presented in the table below.

Table 2: Research Designs (Morgan, 2017)

Qualitative	Quantitative	Mixed Methods
Narrative research	Non-experimental including correlation, case study, descriptive, survey, etc.	Multiphase, transformative, or embedded
Phenomenology	Experimental Design	Convergent
Grounded theory		Explanatory sequential
Ethnographies		Exploratory sequential
Case study		

It is already discussed in the preceding sections that the current study, which is aimed at assessing the extent to which the primary school teachers - in rural settings – are intended to use inclusive innovation principles in the protection of child health right, is qualitative. Besides, the study has adopted an interpretivism philosophical approach that directs towards the selection of such research design (s) that facilitate qualitative analysis. A descriptive/narrative study design has been adopted for this current study. In particular, for the collection and measurement of data, a ‘descriptive research design’ is selected as it involves gathering of data through semi-structured interviews (Yin, 2013). The rationale behind the selection of descriptive research design is that it involves the description and observation of the behaviour of the subject (teachers in the given case) without influencing them.

3.5 Data Collection and Sources

Data collection holds indispensable importance in the successful completion of the study. According to Langkos (2014), data collection is the process of gathering and measuring information related to the research topic. One of the major goals behind conducting data collection activity is to have rich knowledge about the subject and to answer the pre-developed research questions. Data could be collected from different sources including primary and secondary sources (Zikmund et al., 2013). Hair et al. (2011) explain that primary data sources are the first-hand data sources that allow the researcher to directly gather data from the interviewees. This indicates that primary data sources allow the researcher to collect accurate and reliable data that is specific to the needs of the study. Secondary data sources enable the research to gather required data from organisational records, reports, articles, and databases. Saunders et al. (2009) also affirmed that primary data sources offer an opportunity for the researcher to gather real-time data. On the other hand, secondary sources facilitate the collection, interpretation, or evaluation of already existing literature. The prominent features of primary and secondary data sources are compared in the following table.

Table 3: Comparison of Primary and Secondary Data (Ajayi, 2017)

Basis for Comparison	Secondary Data	Primary Data
Meaning	Secondary data indicates the data that is gathered, interpreted, and analysed by someone else earlier.	Primary data is the first-hand information that is directly gathered by the researcher him/herself.
Specific	It May not or may be specific to the needs of the researcher.	Always specific to the needs of the researcher.
Time required for data collection	Short	Long
Cost effectiveness	Economical	Expensive due to travelling expenses need of excessive resources, etc.
Source (s)	Governmental publications, internal records, journal articles, websites, government publications.	Personal interviews, questionnaire, experiments, observations, etc.
Process efficiency	Easy and quick	Required a lot of efforts
Data	Previous studies	Real time data

To collect data regarding the beliefs and practices of primary school teachers towards health promoting activities, the present research selected primary data sources. The data is directly collected from the teachers, working in different primary schools of rural Kgatleng. The rationale behind selecting the primary data collection method is that it offers greater control to the researcher over data, in terms of ensuring its reliability and credibility. In accordance with Saunders, Lewis, and Thornhill (2009), primary data can be collected through different sources that include interviews, questionnaire, observations, and surveys. However, since the present research is based on a descriptive research design, semi-structured interview was used as a method of data collection. The descriptive design allows the researcher to thoroughly investigate the research problem by digging out ‘how’, ‘where’, ‘when’, and ‘what’ related aspects of the topic, which is only possible

through semi-structured interviews. Semi-structured interviews allow the research to collect detailed data from the selected participants, specifically by asking open-ended questions. Gallagher (2009) also stated that semi-structured interviews are preceded by unstructured and informal interviewing that eventually led the researcher towards developing a keen understanding of the topic under consideration. Likewise, in the present research semi-structured interviews, conducted with the primary school teachers in a rural district, enabled the researcher to profoundly assess health related challenges and health promotion activities that are offered to primary school students in Botswana, particularly in a rural setup. The data was collected over a period of 5 weeks between October and November and lasted 20-30 minutes each. Moreover, this data collection technique also allowed the participants (teachers) to explicitly express their views, beliefs, and practices for promoting health and wellbeing among primary school students in Botswana. It is noteworthy that secondary evidence is used for validating the responses of the interviewees (primary evidence). Additionally, already published research on the topic of health promotion schools, perception, and beliefs of teachers towards health promotion, etc. have been considered.

3.6 Sampling

Sampling is the process whereby the researcher selects a small proportion of the population that can be considered as the representative group of the entire population. Since, this group is considered as the representative of the entire population, the researcher can estimate and predict the characteristics and behaviours of the targeted study population based on the observations and analysis of the selected representative group (sample) (Saunders, Lewis & Thornhill, 2009). For any research, there are two categories of sampling methods that can be incorporated; that is, probability sampling techniques and non-probability sampling techniques. The former involves random selection of the members of the population indicating that every member in the population has an equal chance and probability of getting selected in the study. On the other hand, the non-probability sampling technique involves non-random selection of the participant based on conveniences, availability, or judgment etc. (Acharya et al., 2013).

Convenience or intentional sampling is a non-probability sampling strategy that is widely accepted in situations where the sample number of respondents needed to produce accurate data is restricted. This sampling method was utilized by the researcher for the current study. Because it enables the researcher to select the sample based on the researcher's subjective evaluation rather than through random selection, the non-probability sampling technique was chosen because it is more appropriate for the research project (Saunders et al. 2009). Thus, with the incorporation of this sampling technique, the researcher was

able to explain the perspectives and opinion of the participants/ teacher's population serving in the rural primary schools of Botswana. For the present study, convenience sampling was incorporated that involves choosing the participant based on their accessibility and convenience (Saunders et al. 2009). The sampling for this study took place in two stages. The first stage involved the selection of the primary rural schools in the rural district and the second involved the selection of the primary rural schools' teachers across the selected schools.

The second stage of the sampling involved selecting teachers from the selected schools ensuring that a sufficient number of teachers are selected considering the teachers' population of each of the schools. As a result of this, the sampling size was 22 teachers from the 22 schools considered rural in the region. The data collection process involved 19 female and 3 male participants. In each school there is only one teacher responsible for coordinating school health. The ages of the interviewees involved ranged from 25 to 60 years. Informed consent was sought from the teachers before the interview.

3.7 Research Instrument

The data collection stage is the foundation of the entire study and is aided by an appropriate data collection instrument that enables the researcher to collect relevant data (Saunders, Lewis & Thornhill, 2009). Given that the current study necessitates the gathering of primary data directly from the primary school teachers, the researcher collected data from the selected participants through telephonic interviews. It has been asserted that with the incorporation of the survey method, the researcher can collect data pertinent to the opinions, perceptions and views of the target population (Kelley-Quon, 2018). Thus, with this method, the researcher was able to tap on the beliefs of the teachers pertinent to health promotion among primary school teachers in rural schools in Botswana. It is asserted that interviews are time-consuming, but they help in acquiring comprehensive and detailed primary data pertinent to the opinions, perceptions, standpoints, behaviours and beliefs of the audience (Saunders, Lewis & Thornhill, 2009).

Online telephonic interviews were conducted and the responses from the participants were documented and recorded. The interview script consisted of several items to collect comprehensive data such as to determine the health challenges of the learners, how the health care professionals meet the needs of the learners, role as a teacher in meeting these needs etc. It is also important to note that the design and the construct of the survey can affect the extent to which the interview script can collect valid and reliable data and yield valid and reliable results (Saunders, Lewis &

Thornhill, 2009). The interview script was therefore designed carefully. Moreover, in order to ensure that the developed interview script was valid and reliable and appropriate for collecting the required data, a pilot study was collected before starting the actual data collection process.

It is asserted that pilot testing is one of the essential stages in the research study which is conducted to discover possible issue areas in the research equipment and protocols prior to full study execution (Saunders, Lewis & Thornhill, 2009). Although one of the goals of the pilot study is to reduce possible misconceptions and test questions for relevance, logic, and applicability, it is also done to check that the research instrument can be used correctly and that the information obtained is consistent (In, 2017). The pilot study's overarching purpose is to produce data that will help the research efforts succeed. After the pilot study, the interview script was found to be relevant.

In accordance with Saunders et al. (2019), semi-structured interviews are considered the most significant form of descriptive design. They allow the researcher to collect ample and up-to-date information regarding the research topic. Besides that, since the present research is based on a qualitative approach, interviews are deemed to be appropriate for the current study. More precisely, the interview strategy facilitates the collections of an extensive amount of data that eventually allows the researchers to conduct qualitative analysis. Likewise, the interview strategy allowed the researcher in determining the role and capabilities of primary school teachers in Botswana in the provision of school health services. It is mainly because semi-structured interviews are usually characterised by open-ended questions and an interview guide that facilitate in-depth probing of the phenomenon under consideration. Likewise, the interview strategy also assisted the researcher in collecting extensive data from the primary teachers, specifically regarding the role of teachers' and beliefs in health promotion activities. Current health challenges faced by learners, and the initiatives of primary schools in resolving health-related issues of children.

3.8 Data Analysis

Once the data collection stage is completed and the desired response size is achieved, the collected data needs to be analysed and interpreted. This stage is known as the data analysis stage. The stage of data analysis requires the researcher to sort, clean, transform and model the collected data and convert it into useful and easy to understand information form that can be interpreted easily to conclude the outcomes and results of the study. The core purpose is to develop usable information from the collected data and makes meaningful conclusions (Saunders, Lewis &

Thornhill, 2009). It is asserted that the methods and techniques involved in the data analyses stage vary from study to study depending on the nature of the study, the research approach adopted and the type of data collected that is needed to be analysed and interpreted (Bihani & Patil, 2014).

Since qualitative data had been gathered using primary sources of information (interview with the teachers), the collected data was in the form of audio recordings. Thus, a non-statistical method and instrument were needed to analyse the collected data. Based on this, the researcher incorporated thematic analysis technique to transcribe and interpret the response to a meaningful form.

Data collection was done via recorded audio interviews. The first stage of the data analysis was to transform the audio recordings of the interviews into text form. This was done by using speech text converter software (Microsoft Bing Speech API) and then the produced text sets were manually checked and verified by listening to the audio. In order to analyse and interpret the data, the researcher incorporated the thematic analysis

technique. Thematic analysis is applied to text scripts to identify common themes. With the incorporation of the thematic analysis, the scripts of the collected 22 responses were thoroughly read to identify the patterns or ideas that were found to be common and repeatedly occurring across the interview responses (Clarke & Braunm, 2014). This stage was followed by a data annotation stage. At this stage, the common and repeatedly occurring words, phrases and sentences across the response of each question were labelled with relevant codes. The labels were relevant to the objectives of each of the questions in the interview script. After that, the data was aligned with the proper themes (Pierre & Jackson, 2014). This way, the data sets are coded into common themes. It is asserted that responses are coded by converting them from the original form to a form that can be interpreted. The process of coding involves transcribing the responses into themes. This way all the data are analysed and passages and text pieces across the scripts that were linked through a common idea or theme were identified. As a result, the text was arranged in the form of various categories or themes (Pierre & Jackson, 2014). It was ensured that the data sets were accurately analysed, annotated, coded and covered the themes without the inclusion of any assumption or bias on the part of the researcher.

During the coding process, the responses of each of the interview questions were transcribed and various themes for each response were produced. For instance, from the responses to the first question; "What health challenges do your learners have?", 9 major themes were found. They include hunger, lack of concentration, poor hygiene, obesity, dental caries, hearing problems due to infections such as otitis media due to poor hygiene, growth delays due to poor diet, skin problems in terms of skin infections such as scabies and lice and poor mental health due to the complex situation especially among the children from broken homes. Moreover, during the coding process, the prominent biases in the responses were removed to include only unbiased and accurate data.

The degree to which a method accurately evaluates some aspect of interest is referred to as the method's validity as well as its reliability. The degree to which a measurement may be relied upon is referred to as its "reliability" (whether the results can be reproduced under the same conditions). When we talk about validity, what we mean is that the precision of a measurement is what we mean (whether the results really do represent what they are supposed to measure). The present thesis has tested its hypothesis and data unearthed is reproduceable.

3.9 Ethical Considerations

Ethics are regarded as the moral principles and values that govern the behaviour of a person. However, in the context of the research work, ethics are associated with ensuring that everything, from data collection to final interpretation, is conducted in a legally and morally right way. While discussing research ethics Saunders, Lewis, and Thornhill (2009) affirmed that researcher holds the responsibility of showing ethical conduct throughout the data collection and handling process. In particular, the study is found to be ensuring the well-being, right, dignity, and safety of the

participants. In more precise words, studies - that involve personal data and human participants –are required to follow ethical guidelines in terms of protecting the integrity, confidentiality, anonymity, and dignity of the participants. One of the prominent ethical aspects that are required to be adhered to by the researcher includes ‘informed consent’. Informed consent means that an individual intelligently, voluntarily, and knowingly agrees to take part in research (Yip, Han, & Sng, 2016). Considering the importance of informed consent, the researcher gave detailed information about the purpose of the research and the reason behind collecting data about teacher’s beliefs and practices to promote health in primary schools of Botswana. Along with this, the participants were also informed that their participation is completely voluntary and they are free to withdraw their participation without any prior notice and without reprisals. Connelly (2014) also affirmed that it is the ethical responsibility of the researcher to inform of the right to t to withdraw from the research at any time.

Besides informed consent, ‘respect to confidentiality and anonymity’ is another research ethics aspect that must be considered by the researcher. According to Fouka and Mantzorou (2011), the researcher holds the responsibility to maintain the confidentiality, anonymity, and privacy of the participants by ensuring that participant’s personal information is not shared, either intentionally or unintentionally, with any third party individual. To assure the confidentiality and anonymity of the primary school teachers (participants of the current research), the data – i.e., interview transcriptions - in password protected systems. Moreover, the actual names and identity of the participants were not revealed to ensure the element of anonymity. In addition to this, the researcher also avoided the misinterpretation, falsification, and fabrication of data by ensuring that the responses are not modified or are influenced by personal opinions and thoughts. Furthermore, to avoid the risk of plagiarism or copyright related issues all secondary data was duly cited and actual researchers were properly acknowledged in the research. Besides all of these aspects, access to the research participants was obtained in an ethical manner, i.e., interview settings and time were selected as per the availability and convenience of the participants (primary school teachers in rural Botswana).

3.10 Chapter Summary

The following table summarises this chapter:

Table 4

Section	Description
Research Philosophy	In the current research work, the researcher has taken single knowledge into consideration which is gathered through structured methods (interviews); thereby, the philosophy of the research is interpretivism. In particular, the research is intended to extend the research findings – regarding the current practices of providing health services in primary schools of Botswana (filling the research gap), specifically by assessing teacher’s role and perceptions, which leads to interpretivism.
Research Approach	The present research is based on a ‘qualitative research approach’ as it facilitates the analysis of human’s behaviour and thoughts regarding the specific phenomenon. Likewise, the qualitative research approach also assisted in recognising the extent to which the primary school teachers in Botswana are positioned to use innovative principles in the protection of child health rights.
Research Purpose	The purpose of the current research study is ‘explanatory’, as the subject has already been explored previously. However, the present research explains the phenomenon specifically in the context of Botswana primary schools.
Research Design	The research design which has been adopted in the current study is descriptive as it facilitates the researcher to gather an ample amount of relevant information.
Data Sources	The present research is based on primary data sources, where the data is directly gathered from the interviewees (teachers working in the rural primary schools in Botswana).
Sampling Strategy and Procedure	In the current study, the researcher selected the purposive sampling technique’ for choosing the participants. The rationale

of selecting this sampling technique is that it allows the researcher to choose those participants that best represents the targeted group. By using this sampling strategy, 22 teachers were selected, working in twenty five different schools in a rural district in Botswana.

Research Instruments

For the sake of collecting data – related to the provision of health services for children in the Botswanan primary schools - the researcher used an interview guide. In this account, the interview guide was comprised of open-ended questions to deeply probe the participants (teachers) regarding the subject; hence, gathering comprehensive data to recognise the health-related changes that are being faced by the learners in the primary schools of Botswana.

Data Analysis

The research utilised the thematic analysis technique for analysing and interpreting the collected data. The transcriptions – created during the interview process – were carefully read to identify the common ideas or pattern found in the interview responses.

Ethical Considerations

The researcher followed ethical guidelines throughout the study, specifically by protecting the rights of the participants, in terms of confidentiality, anonymity, integrity, and privacy. In particular, the participants were informed about the objectives and purpose of the study, while clarifying that their participation is voluntary, and they can withdraw from their participation at any stage. Most importantly, the researcher ensured that the collected data is fairly presented in the study, without any misinterpretation and fabrication.

CHAPTER 4: RESULTS AND DISCUSSION

This chapter presents the findings of the study i.e the responses of the participants on the key research themes including health challenges in rural Primary schools, beliefs and practices of teachers regarding health promotion, complexities and intersectionality of the teacher and healthcare provider roles, impact of Covid-19 on the role of teachers in health promotion, and innovative solutions to enhance social and health capital in poorly resources areas. Additionally, this chapter also discusses the findings with the support of previous literature discussed in the literature review section. The chapter focuses on analyzing and evaluating the data collected from twenty-two (22) schools of the rural district in Botswana. In order to validate the findings of the research, the results are contrasted and analysed using pertinent literature. All in all, this section of the dissertation represents the final results that are drawn for answering the research questions and study aim.

Furthermore, this chapter brings to light key findings that answer the set aim, objectives as well as research questions. More importantly finding out how teachers can contribute towards inclusive and innovative practices in the advancement of child health rights and reduction of their vulnerability.

4.0 Data Source and Profile of Research Participants

As indicated, data for this study was collected from twenty-two schools in the Kgatleng District of Botswana. As such, the study involved 22 interviewees. The interviews were conducted between October and November 2021. Among the research participants, there were three male and 19 female teachers. The age of participants ranged between 32 and 61 years. In addition, the total number of years in service as a teacher ranged between 8 years and 30 years. Table 5 below summarises the data sources and profile of the research participants.

Table 5: Data Sources and Profile of Participants

School	Interviewee	Date	Gender	Age	Years in Service
School 1	001	28/10/2021	F	37	12
School 2	002	29/10/2021	M	56	25
School 3	006	1/11/2021	F	60	28
School 4	007	1/11/2021	F	40	15
School 5	008	2/11/2021	F	61	30
School 6	009	2/11/2021	F	48	14
School 7	010	3/11/2021	F	36	12

School 8	011	3/11/2021	F	45	20
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School 9	012	4/11/2021	F	45	15
School 10	013	4/11/2021	F	52	20
School 11	014	5/11/2021	F	54	24
School 12	015	5/11/2021	F	38	12
School 13	016	8/11/2021	F	32	8
School 14	017	8/11/2021	M	40	15
School 15	018	9/11/2021	F	51	21
School 16	019	9/11/2021	F	52	25
School 17	020	10/11/2021	F	46	14
School 18	021	10/11/2021	F	37	11
School 19	022	11/11/2021	F	50	23
School 20	003	15/11/2021	F	48	13
School 21	004	16/11/2021	F	51	25
School 22	005	17/11/2021	M	41	16

4.1 Health Challenges in rural Kgatleng Primary Schools

Health challenges are widespread in rural regions of the world, and the findings of Peterson, Cooper, and Laird (2001) emphasized that improving the health status of school going children has become one of the biggest challenges faced by many nations. This is mainly due to several factors that include health illiteracy, parental negligence, poor nutrition, poor hygiene and risk-taking behaviour among children³. Therefore, to elaborate on these challenges and derive in-depth insights, the current research bears an objective of identifying beliefs and practices of educators in rural primary schools in relation to their role and scope of involvement in the protection of child health rights. Interviewees were asked about the challenges that learners usually face in their schools. In this account, one of the interviewees affirmed that hunger is one of the challenges that is faced by the children that is basically due to the scarcity of food in the children's homes. The interviewee said that:

³ The caveat is that in the same locations, there would be complete opposites not reported on,

Hunger is one of the challenges faced by children in our village. Children coming with an empty stomach are not able to concentrate on their studies which ultimately affects their academic performance.(Interviewee-001)

Another interviewee stated that:

Everyone in the world has a right to healthy and sufficient meals. However, children here in our village do not even eat anything for breakfast. These children come to school hungry and always eagerly wait for breaktime as the school provides them with meals. If only government could assist with providing three meals for these children while at school, like with one of the schools in our region, a lot of children could really benefit from this. You can see that some of these children only eat at the school. (Interviewee-002)

From the above responses, it is evident that the participants consider poor nutrition as one of the prominent challenges contributing to poor health of children in the Kgatleng District. Dutta, Anaele, and Jones, (2013) are of the view that hunger has become a concerning health- related challenge faced by children particularly in developing countries. Factors that contribute to children's hunger is the lack of sufficient, and nutritious food especially in homes where parents or guidance are faced with unemployment. These parents barely have resources to provide for their families. One-sixth of the population of the world is suffering from hunger. This is even more prevalent in African countries resulting in increased child mortality. Rinehart, Folliard, and Raimondi (2016) also supported this claim by stating that malnutrition is the reason behind the serious health issues that are encountered by African children and adults. In particular, the unavailability of sufficient and nutritious food leads children to low energy levels, weight loss, weak memory, etc. These health challenges eventually make these children prone to poor academic performance. One of the interviewees said that:

Most of the children living here in rural areas suffer from lack of concentration because their focus is on other things like on food and other challenges of life that are badly influencing their health and overall wellbeing. (-Interviewee-003)

Likewise, another interviewee shared that:

Most of the children here suffer from lack of concentration which is sometimes related to learning abilities. As teachers, we may be limited in identifying some learning challenges and may unintentionally delay these children from accessing professional help. Some of these children end

up leaving the school as they struggle with learning and now become a burden on economy as they start engaging in criminal activities. (Interviewee– 004)

The response from the interviewees showed that children in Kgatleng rural primary schools suffer from a lack of concentration and some appear to have learning disabilities. According to some of the teachers, mental health has become a problem in their schools. Existing literature, such as Allington-Smith (2006), stated that life is very difficult for children who suffer from mental health and learning disorders. These children usually suffer from epilepsy, autism, and hyperactivity disorders. However, these children can easily get over their mental health conditions through medication and family and friends' support. Similarly, Emerson and Hatton (2007) argued that children who suffer from learning disabilities are 33 times more prone to develop autistic spectrum disorder, eight times Attention Deficit Hyperactivity Disorder (ADHD), six times conduct/behavioural disorders, four times emotional disorder, and 0.7 times depression disorder. Emerson and Hatton (2007) further stated that such children face severe mental disorders when they do not get professional help and any support from their family, teachers, classmates, friends and community. Most importantly, these children are at high risk of leaving school and living a vulnerable life. Based on these findings, it can be concluded that one of the health challenges faced by children in the primary Schools of a rural District of Botswana is related to mental health conditions.

Besides mental health conditions, obesity is another pressing health issue that is faced by the children attending primary schools in the Kgatleng District. Existing literature has identified obesity as one of the health challenges faced by children. Talen and Mann (2009), for example, affirmed that increasing obesity is associated with the mental health conditions of children. In particular, they suggested that obesity is alarmingly increasing among school going children, which is mainly due to psychological and emotional stress. NHS (2011) also supported this idea by claiming that obese children are at high risk of losing control of their eating habits, which is mainly due to lower body esteem, symptoms of depression, and higher anxiety levels. In a similar perspective, Yager and Dea (2005) stated that children that are exposed to unstructured feeding patterns are at high risk of becoming obese which is not only bad for their health but also negatively impact their academic performance. Yager and Dea (2005) further added that teachers could play

a vital role in influencing positive eating habits of children and protecting them from obesity. One of the interviewees also said that:

Our children are too young to understand the consequences of having poor health conditions that are caused by inappropriate eating habits. It is therefore our responsibility to educate them about good eating habits and hopefully protect them from ill health caused by obesity.
(Interviewee- 005)

While relating obesity with mental health conditions, another interviewee stated that:

Children often consider food as an escape from pain ,especially if they are going through challenges at home. (Interviewee-006)

Mental distress is not often associated with adults only, instead children are also found to experience mental distress. Russell-Mayhew et al., (2012) said that mental distress – specifically among children – often result in binge or irregular eating habits that lead children towards becoming overweight and having grave obesity issues. Children feel good when they divert their focus from their daily life challenges and stress to food particularly food that contain high levels of fat and sugars. It was further discussed that those children who are not able to accept the challenges at home often suffer emotional eating. These children are often inactive and lack the drive to engage in physical activity.

Besides mental health conditions and obesity, poor hygiene is another challenge affecting children in the primary schools of Kgatleng. Children are vulnerable to other sorts of infectious diseases. Azupogo, Abdul-Rahaman, Gyanteh, and Atosona (2019), explain that diseases such as diarrhea and respiratory tract infections are among the conditions that threaten the survival of children in developing countries, specifically those from African regions. The World Health Organization (WHO) reported that 1.7 billion children suffer from diarrhea with approximately 525 000 children dying from this disease.

In the same context, another interviewee articulated that poor hygiene negatively impacts on children and their peers. The interviewee had this to say:

Children lacking the basic hygiene of washing hands and covering their mouths when sneezing or coughing result in spreading of germs in the environment and making other children sick. These unhygienic practices are a big challenge especially now in the time of COVID-19. (Interviewee 004)

The concept of growth development is linked with the anthropometric measurement that indicates the increase in height and weight. Besides height and weight, child development is also associated with the measure of brain function, assessment of motor coordination, language, and socio-emotional skills, and academic cognitive performance. This indicates that a child who suffers from low growth and development tends to face the issues of low height and weight together with poor brain functionality (Piper et al., 2017). In addition to this, Sarkar (2013) also proclaimed that primary school children usually suffer from poor sanitation and personal unhygienic situations. These children do not only suffer from poor growth development but also from dental, skin, and hearing problems. It is noted that the same situation is happening in the sample District where children present with dental, skin, and hearing problems. One of the interviewees said that:

Nurses used to visit our schools to conduct physical assessments and would identify children with teeth decay, hearing problems, growth disorders etc. Unfortunately its been a while since we see them in our school. (Interviewee- 007)

Another interviewee stated that:

Most children in our school do not even brush their teeth before coming to schools and end up with discoloured teeth as well as gum infections. (Interviewee- 008)

Based on the responses of the interviewees, it can be concluded that oral health is another health related challenge that is faced by children. This issue is also discussed in the literature as Jose and Joseph (2003) affirmed that almost 400 different species of bacteria are living in the mouth. If a person does not pay attention to their oral hygiene, these bacteria get into the bloodstream of an individual and can cause serious health challenges. It is therefore important that children are empowered to take care of their oral health.

Regarding personal hygiene, one of the interviewees reported that:

We have a big problem of personal hygiene in this area. There is a lot of parental negligence that we observe. Children come to school without having taken a bath for days. This affects their confidence as they appear different from other children. (Interviewee- 009)

While commenting on hearing and sight challenges one of the interviewees said that:

We have observed that some children have hearing challenges. Unfortunately healthcare providers take long before they come and do any assessments. In this case we just inform the parents and encourage them to take the children to the clinic. (Interviewee- 010)

Another interviewee reported that:

We have picked that some children have sight problems. They usually struggle to copy notes from the board. The problem is because we are not health care professionals we take long to notice some of these health challenges. But when we do, we call the parents and inform them to take the children to the clinic. Some parents come forth, other don't. This is really said because it affects children performance in class. (Interviewee-011)

Thus, it can be summarised that teachers - in the primary schools of rural Botswana - have observed several challenges in the form of hunger, lack of concentration, poor hygiene, mental ill health, and obesity. This requires urgent attention from government and other stakeholders including parents to ensure good health and wellbeing of children.

4.2 Beliefs and Practices of Teachers Regarding Health Promotion, and Protection of Children's health rights.

This section focuses on the study results relating to the current practices and role and perception of the primary school teachers of Botswana towards health promotion. This is aligned with the one of the objectives of the study which seeks to document self reported beliefs and practices of teachers in relation to their role and scope of involvement in protecting child health rights. In this regard, teachers were asked a question regarding their role and perceptions in meeting the health needs of the children. The study revealed that the majority of the participants perceived themselves as playing an important role in promoting health and wellbeing among children. This is in line with Chapman (2004) who affirmed that health promotion and education is an act of empowering and engaging communities to adopt healthy behaviours and change their lifestyle to minimize injuries and diseases. Based on the evidence gathered, teachers have a positive perception of their contribution to health promotion and protection of children's health rights such as ensuring a conducive learning environment in order to foster quality learning and improve academic achievement. This highlights that primary school teachers in the district believe in building healthy progressive communities by influencing behavior change and promoting positive health habits among school children. The following excerpts underline this key finding.

Recently our school has discovered that several children suffer from mental health issues. Some children have lost parents and other family members to COVID-19 with little psychological support. I have now decided to discuss topics related to communicating our feelings to encourage them to deal with their emotions. (Interviewee- 012)

COVID 19 pandemic has drastically disturbed the life of children and their families. Therefore, we - teachers - believe that educating the children about the precautionary measures can help educate the community. We especially give lessons to students during class about the need to wash their hands, wear a mask, and maintain reasonable social distance to avoid getting infected. (Interviewee- 013)

While elaborating the concept of health education and promotion another interviewee elucidated that:

Health promotion to me entails encouraging positive health behaviors amongst communities. This concept can be taught to children through health promotion activities. Before COVID-19 we used to have peer education groups where children learnt positive behaviours from each other such as

physical fitness, oral health, hygiene and supporting each other through life challenges. Such initiatives help them avoid getting exposed to non-communicable diseases such as diabetes, stroke and high blood pressure. (Interviewee- 014)

The above accounts gathered from the interviewees show that the teachers perceive that they play an active role in promoting healthy habits among children by facilitating sessions that help educate them about health and overall wellbeing. Aghazadeh, Aldoory, and Mills (2020) propounded that educating primary school children about health is a significant activity because this is the time when they make decisions about 'how to play' or 'what to eat'. Most importantly, early age education also plays an important role in shaping the future behaviour of children in adult age. Therefore this is beneficial in terms of enabling them to make healthy decisions. Moreover, Booth (2021) posited that many of the diseases and pandemic like COVID 19 has negatively impacted children's mental health. Children between the ages of 5-16 years are suffering from mental health disorders that need the attention of countries across the globe. Booth (2021) further outlines that besides the responsibility of the government, teachers can also contribute by incorporating mental health topics in their courses.

The collected data has revealed that the senior teacher Guidance and Counselling head the school health committees. Much as they are capacitated to offer guidance and counselling education, they are however limited in some health-related topics which affect their delivery of health content. In the same context, Olashore, Akanni, Ogunjumo, and Swetha (2019) reported that in Botswana's schools most of the teachers do believe that mental health disorders are required to be handled with special attention, and therefore lack of mental health expertise renders them insufficient to support children in need. Besides mental health, the teachers (interviewees) also emphasised personal hygiene by indicating that it holds undeniable importance in protecting the health and wellbeing of children. ALBashtawy (2015) articulated that personal hygiene among children of age 6-12 years is an important tool to protect the communities from communicable diseases such as fungal, bacterial, and viral infections. Since children are more prone to unhygienic conditions, teaching children about personal hygiene and neatness at an early age helps them in their future life. One of the interviewees said that:

Teaching children about personal hygiene is the responsibility of every teacher. So, we urge the children to bath daily, wear a neat and clean uniform, take good oral care, wash hands after coming from the toilet, and before eating food, and so on. However we have observed that

children from many households in our area come to school without having taken a bath or brushed their teeth. This is sad. Some of them do not have proper uniform and come to school with dirty clothes. (Interviewee- 015)

This shows that primary school teachers in Botswana - see children's personal hygiene as their responsibility. This is also evident from the response of one of the interviewees who said that:

Once I distributed the daily hygiene activity chart to the students to improve their personal hygiene. In this chart, students were required to tick mark the activities like did you wash your hands, brush your teeth, comb your hair etc on daily basis. I asked the children if they do all of the mentioned activities on daily basis for a month, I will give them special personal cleanliness certificates and this approach worked. (Interviewee- 016)

The above statement indicates a strategic approach of a teacher who attached personal hygiene to a perk. In particular, the teacher encouraged the behaviour of children towards personal hygiene to keep them safe from pathogens and diseases. As most of the children in the Kgatleng District seem to be faced with poor hygiene, such steps and strategies could be considered as having potential to promote good hygiene. In a similar account, Kang and Chang (2019) have also provided the checklist for teaching the children about handwashing – specifically for improving the personal hygiene of children and protecting them from diseases. Kang and Chang (2019) stated that this form of teaching children about hygiene is vital as school going children spend most of their time in schools and such lessons could tremendously improve their health and overall wellbeing. In such regard, Rentala, Lau, Aladakatti, and Thimmajja (2019) stated that with the help of health education and promotional activities, teachers cannot only improve the well-being of children but can also easily improve the learning abilities of their students. Such activities enable teachers to easily identify students with learning disabilities; hence implementing required interventions and plans. Some of the interviewees have also outlined the issues of learning disabilities among the children of primary schools in the Kgatleng District.

One of the interviewees stated that

We can barely identify learning disabilities of the students because this requires expertise. It needs teachers to have enough knowledge about different types of learning abilities, causes, and develop relevant instructional strategies apart from just guidance and counselling. (Interviewee-017)

The above statements show that identifying learning disabilities among children at an early age is key. This, however, requires teachers to have certain expertise. There are some teachers who go beyond their capabilities and attempt to identify the causes of their students' poor learning behaviours. Shukla and Agrawal (2015) state that learning disabilities have been increasing among children for the past few years and require teachers to have profound and in-depth knowledge of the phenomenon. In this regard, the authors propounded that teachers are required to put extra efforts to protect students by providing a conducive and supportive learning environment and improving their learning disabilities. This is the same strategy used by the school teachers of the Kgatleng District where teachers believe that they are providing a conducive learning environment to their students in order to enhance a positive learning experience and promote wellbeing. Concerning this, Ahmad, Shaari, Hashim, and Karimnia (2015) defined a conducive learning environment as one that fosters learning and is inclusive. Authors said that providing a conducive learning environment in schools is key to ensuring that children reach their full potential. One of the interviewees said that:

To deliver the lessons effectively, I pay attention to small details such as seating arrangement in the classroom. Particularly, in the lessons that need collaboration, I ask the students to sit accordingly. However, if the lesson does not need much collaboration, I allow the students to sit as per the proposed seating plan. I always ensure that the classroom is clean and that there is good ventilation. This helps me a lot in creating a conducive learning environment to enhance the performance of students in class. This has however been a challenge now with COVID because children have to sit at least a metre from each other.

(Interviewee-018)

In a similar context, another interviewee stated that:

For an effective learning environment, classroom culture and climate play a significant role. Therefore, during my lessons, I teach the students about creating and maintaining good relationships, personal hygiene and generally supporting each other emotionally. Teaching students these things at an early age assist them in building good social habits that are favourable for building a healthy society. (Interviewee-019)

These responses demonstrate that the teachers in the Kgatleng District are aware of the positive impact that the environment has on promoting learning. This approach does not only facilitate active learning but also boosts the confidence of the students. According to Abdullah

Bakar, and Mahbob (2012), a conducive learning environment is one that involves the learner and teacher and stimulates an active participation in learning. It encourages a healthy relationship between children and teachers and results in increased academic performance. Classroom discussions provide for cognitive development, creativity, and improved mental and physical health. Jacobson (2000) posited that teachers play an important role in building knowledge of the students – specifically associated with healthy habits. Students learn a lot from their classroom environment; therefore, an effective environment is essential for enhancing their learning regarding mental and physical health, hygiene, etc. When teachers are supportive, children tend to perform better. One of the interviewees demonstrated this point by stating that:

Supporting and guiding students is fundamental to cultivating a culture of responsibility among these children. We are aware of the impact we have in our students and are challenged to ensure that we exhibit positive behaviors at all times. We also encourage them to do the same to their peers.. This is the reason, why I recently introduced an activity of show empathy to others in which students need to draw empathy-related activities to boost the factor of care for others. (Interviewee-020)

Another interviewee shared activity by claiming that:

To enhance the health-related education among children and provide guidance to them, we at school provide worksheets during their physical assessment activity. This worksheet provides individualized guidance to the students regarding how they can improve their physical health. (Interviewee- 021)

Such guidance from the teacher, results in bringing a positive change in the life of children – in terms of improved health and wellbeing. Lunenburg (2010) claimed that providing students with an opportunity to make progress in his/her education, emotions and cognitive development is a primary function of education in which teachers play a significant role. Therefore, the teachers' approach, i.e., guiding students about their physical health or teaching them important lessons of care and empathy must be part of education programs. Beijaard, Meijer, and Verloop (2004) also supported this idea by claiming that the teaching profession is evolving as in previous times it was more static; however, nowadays it has become more dynamic and requires active involvement of teachers throughout the learning process. In particular, teachers are required to play an active role in the wellbeing of children. That is why teachers are proactively engaged in promoting personal

hygiene while identifying learners with learning disabilities and providing them guidance and counselling to improve their mental and physical health. Based on these findings, it can be argued that teachers – in Botswana’s primary schools – are making all possible efforts to promote health and wellbeing among children.

4.3 Complexities and intersectionality of the teacher and healthcare provider roles

More recently literature has emerged that offer contradictory findings about the scope of practice of teachers in health promotion. These findings showed that some teachers strongly believe that their role in health promotion is limited by their lack of preservice and inservice training. Therefore, this renders them inadequate in their role as health advocates. Teachers also believe that their lack of health knowledge on certain ailments limits their contribution to health promotion. Further complexities exist in that there is lack of resources as well as organisational problems, and all these feed into budgetary implications for all ministries tasked with school health. Teachers were synonymous in their belief that currently health related services are the mandate of healthcare professionals. However, they lamented that healthcare professionals only come to the school for immunisations. Other school health services have been neglected including physical assessments and health education. Teachers believe that perhaps with preservice and in service training they maybe in a position to offer some school health services traditionally offered by health care professionals.

The concept of health promotion has gained fresh prominence with many arguing that teachers can go beyond their mandate of just delivering educational content but playing a significant role in health promotion such as providing basic first aid, and offering health education lessons such as sexual reproductive health and basic awareness of issues such as non-communicable diseases etc. However, there exists a major challenge with this approach in that teachers lack capacity, equipment, resources as well as increased burden on their core responsibility.

It is also important to analyse the level of knowledge and its effect on the general health condition in Botswana. This study has already discussed the value of teachers and their contribution to health promotion. There is however also need to evaluate their knowledge on matters pertaining to health. Hence, this subsection of the study discusses the traditional role of teachers as an instructor and focuses on their level of knowledge that can be instrumental in

uplifting the health standards in rural Botswana. However, first, it is important to state some key findings from the literature review. The study of Chapman (2004) gives various examples of organisations which actively enacted health programs that focus on individuals' becoming their own health resource through increasing their health literacy. This is a good example that rural schools in Botswana can also follow. This however requires that implementers develop structured health programs where teachers health knowledge can be developed. This information can then be shared with students who in turn would educate their families and the community at large. The following response sums up the discussion thus far:

I myself have been a teacher for more than a decade, and can confidently say that as teachers we do not possess the requisite knowledge or skill set that can help uplift the health indicators of our region. I would rather suggest that if the government is really serious about doing something, then it should start from the schools and teachers because these are the agents that hold the maximum influence over a child's life.(Interviewee- 022).

Based on the above response, it may appear that government does not prioritise school health. This may negatively impact children's health especially in the context of Covid-19, where healthcare facilities are already overburdened, and if children's are susceptible to the virus, it will be an alarming situation. Concerted efforts must be targeted to protect children's health rights. It is therefore necessary to find innovative, cost-effective and efficient solutions to this challenge such as capacitating teachers to perform nonclinical school health services such as health education and basic physical assessments.

Furthermore, solutions must be strategic than tactical. It means that it must not be based on scientific procedures that focus on short-term goals and long-term objectives. For instance, this is the condition that has been shown by the current Covid-19 pandemic. If the health programs are tactical, then it will solely focus on the pandemic and how to get over it whereas, the long term oriented programs will rather aim to caution the students of the declining health indicators of Botswana and how to protect them and their households. The most common diseases prevalent in Botswana are HIV, malaria and Tuberculosis (TB). A health program must directly address these diseases and aim to spread awareness regarding protecting oneself from such diseases.

4.4 Impact of the COVID-19 Pandemic on the Role of Teachers in Health Promotion

With little doubt, the current crisis of the Covid-19 pandemic has hit the world with a storm and has exposed the vulnerability of the health system. These effects have been felt even more by the developing countries, such as Botswana, which already has several health challenges to battle against. Covid-19 has essentially exacerbated the poor health conditions. However, one positive thing the pandemic has done is to spread health awareness on a large scale.

With this Coronavirus, we teachers were taking extra precautions so that the general health-related conditions are met, and the virus does not spread in our respective villages. In our district, the provision of health services are already scarce, and if the virus spreads, it will be catastrophic for the village residents. Hence, maintaining an optimal level of hygiene and following COVID protocols ensures that we prevent the spread of the virus. (Interviewee-006).

It seems that the role of teachers has now been transformed to include that of health screening and being alert of children who may present with signs and symptoms of illnesses particularly of COVID-19. This is important in rural setup where health services are scarce, and there is not much awareness regarding maintaining proper health. Since children spend a significant time at school a huge responsibility lies on teachers to encourage positive behaviours that may lead children to leading healthy lifestyles. This is also supported in literature by authors such as Lepp et al. (2021) as they highlight the value of teachers in motivating children to exhibit positive behaviours especially in this time of the pandemic. Globally schools have been closed down at different times and different durations and have resorted to online or distance learning method due the COVID-19 pandemic. However, in rural Botswana, where there is no proper infrastructure for the internet and neither the proper resources for students or teachers to exploit, the online learning.

It is also important to analyse different perspectives deduced through the response of interviewees. Almost 30% of the interviewees regarded promotion of good personal hygiene as fundamental in health promotion. It is once again one of the cores of the research findings. It is because personal hygiene is very instrumental when talking about public health, as masses do not understand the implications of maintaining personal hygiene. A further insight is provided in the below response given by an interviewee:

What is personal hygiene? It is about how you care about your body. It is about being more sensitive about yourself and the ones around you. It clearly affects the social life and health of others. When viewed in this sense, it is the duty of teachers to spread awareness regarding personal hygiene. If teachers don't do this, then it will be a problem for the school and the public at large. (Interviewee-008).

The response helps us analyse the role of teachers which goes beyond the well-established notion of teachers as education instructor. Instead, it is the teachers that students look up to and consider them as their role models. If the teachers do not respect personal hygiene and dismiss the threat of the virus it will further exacerbate the current crisis. As per the study of St Leger (2004), the issues of malnutrition or sanitation, which are the prime concerns in the public health sector, must be incorporated in the national curriculum, and teachers should be trained in such challenges in order to empower the younger generation. With respect to the transformative role of teachers during the pandemic. Graciano et al. (2019) stated that teachers can actively participate in health awareness at the individual level. It can be the missing link that is often missed when discourse regarding public health is brought about. In addition, the author has also argued on the role of teachers in the promotion of vaccination drives which is the foremost challenge to overcome during Covid-19. The reluctance of the masses to vaccinate themselves and the people around them has become a topic of great debate and a concern for most governments. The strategic role of teachers can be instrumental in overcoming such challenges.

As far as practical feasibility is concerned with respect to teachers' agency, the study of Ramukumba et al. (2019) provides a framework that can be implemented to realise the above objectives. For instance, it has been mentioned and discussed in the literature review section that researchers advocate for collaboration between ministries or departments that should come together and act in public health. It means that all the important stakeholders ranging from governments to schools to teachers must develop a sense of partnership so that the condition of the virus can be improved. At the same time, students are inculcated with the basic sense of personal hygiene and public health. This can reduce the burden on the public health service and have a huge impact on the efficacy of the ministry of health. The researchers have gone as far as to suggest that a health subject must be introduced with the basic purpose of making students aware of the health conditions and risks that they are exposed to every day. It will not only be effective in defeating

the current pandemic, but also in other health challenges. For instance, as per the theory of evolution, the virus will evolve into a more deadly form, and thus public health awareness remains the only solution for future times. It calls for urgent action in the transformation of the school curriculum in Botswana as the country needs to be protected from future health threats. It needs to start from the grassroots level. This grassroots level would mean involving teachers who are in direct contact with the students. It is also to be noted that these students then go home and share their learning with their families, which means that by educating one student, the attitude of the whole household can be transformed.

The other responses recorded in a high frequency from the interviewees include ensuring a conducive learning environment and identifying learning difficulties among the learners. With respect to the former, it is essential that a conducive learning environment is created in order to achieve positive learning outcomes. A conducive learning environment is discussed in the study of Ahmad et al. (2015), who regards it as an environment impacted by several factors. These include physical spaces, environmental protection, etc., ultimately resulting in a positive classroom environment and improved learning among the students. But how is a conducive learning environment related to the role of teachers? It is, in fact, the teachers that are tasked with creating such an environment. Teachers play a pivotal role in identifying environments that do not foster learning. Policy recommendations suggested in the study of Stewart-Brown (2006) and discussed in the prior chapter is important to discuss. As per the researchers, health promotional programs with specific aims and objectives must be created and implemented. It cannot be achieved without the important role of teachers. Under the context of Covid-19, it is important that teachers act as agents of health and encourage behaviours that will prevent the spread of the virus among children. It is a whole system that needs to be developed and to achieve such results; teachers must be tied with incentives like recognition and possible promotion if they successfully impart health awareness among the students. Similarly, identifying the learning difficulty among the students must also be the responsibility of the teacher.

4.5 Innovative Solutions to Improve Social and Health Capital in Poorly Resourced Areas

This section presents and discusses study results relating to the innovative solutions that could be implemented to improve social and health capital in schools' in the context of poorly

resourced areas. Similar to the previous section, this part of the study relies on evidence sought from literature and information provided by the research participants. With respect to the innovative solutions that can be provided to improve the provision of healthcare services in poor resource areas, there was mix and array of responses. This is beneficial for the research as it offers a multitude of opinions from seasoned teachers, who at the same time, have on-ground experience working in rural schools. One of the solutions suggested by the teachers was the introduction of school nurses. This provides the benefit of having a fulltime healthcare professional in the school. The following response from one of the interviewees provides insights into the suggested solution:

It is without a doubt that nurses can really help us with school health. Teachers cannot provide the students with the required healthcare services, and it is quite clear that schools need to be supported by healthcare professionals. So, for me, I think having a fulltime nurse can really transform school health. They are usually delays in students accessing healthcare services therefore a fulltime nurse will be able to promptly identify childrens health needs and attend to them. (Interviewee-003)

The concept of social capital discussed in the literature review is very relevant. As suggested by Thompson (2018), collective social capital refers to the part of a community's collective property, whereas social capital at an individual level refers to the resources that emerge due to the individuals' capacity of being a part of the social network that provides access to information and support. In this case, nurses serve as access to information and support to a group that is already at a disadvantage. The individuals in this case are the students, and the nurses can help them integrate into the community innocuously by providing them with basic healthcare teaching and services. The study of Eriksson (2011) is also mentioned in the same chapter regarding social capital in the context of the health sector as a way of investing in individual health, which can then prove instrumental in increasing the quality of the social network. It provides a unique perspective of the added benefits of the provision of nurses into the healthcare sector as these nurses can improve the socialisation process of the students, which can help them merge in society as a positive agent. In addition, the findings of Young (2005) highlights that schools are the place where children develop their early relationships.

Another interesting solution that has been recorded through the interview is of providing nutritious meals at the school. It has many benefits, including increasing the enrolment of the students at the school. An example of this is provided in the seminal work of Banerjee and Duflo (2011), who state that the enrolment of students in a village in India increased significantly when the schools

started offering students breakfast. This provided the additional benefit to the parents to send their children to the schools and, at the same time, increased the nutritious level of the children at large. The following response sums up the solution perfectly.

In my opinion, providing a nutritious meal at the schools can help the students in attaining the minimum nutritious level and at the same time, keep them motivated for learning. Such a program can show dramatic results as in our district, not all the families have the financial resources to provide daily nutritious for their children.

(Interviewee-001).

Another interviewee replied that,

Good nutrition should be maintained to promote good physical and mental growth.. Good nutrition can help main maintain a healthy weight. At our school children are only provided with breakfast but in one of the schools in our district children are provided with three meals a day. This includes both boarders and day scholars. I think this is the reason why children at that school seem to attend school better than our students. They are motivated by the nutritious food provided at the school (Interviewee-003).

When the above quotations are viewed through the lens of the literature review, the studies of Metos, Sarnoff, and Jordan (2019) and Adamson et al. (2006) become relevant. Provision of nutritious meals at schools especially rural schools improves academic performance as children do not miss schools due to hunger. Children are motivated to attend schools because they know that they will be provided with meals. The same is the conclusion drawn by Perikkou et al. (2015), who advocates for school-based nutritional programs, which is useful for students from a health point of view in providing them an incentive-based meals, and general awareness about good food choices. Basically, a school-based nutritional program compliments the educational component with healthy school menus.

Similar to the above two, there is another unique response given by the interviewees that can be incorporated by the schools. This response is linked to the upgrading teachers' skills in order to make provide them with the health promotin expertise they need. Such a solution is easier to implement than the rest of the two as it only requires extensive training of the teachers without setting up a new system like school meals or nurses. In addition, providing healthcare training to teachers can also be quite effective as it is with the teachers that the students bond and connect with. There is also the argument that health and education are complimentary. Therefore health

education and promotion will be better disseminated by teachers who already have a relationship with the students. It is further reflected in the below response by one of the interviewees:

The best way to improve the provision of school healthcare services would be to provide proper training to the teachers. Teachers serve as the link between the students and the society, and by training these teachers, the desired behaviour from the students can be achieved and shared with the rest of the communities. (Interviewee- 004)

Once again, it has been shown that health promotion cannot be achieved without involving teachers as key stakeholders. This relates to the social capital theory that argues for developing co-operative relationships with stakeholders in the promotion of health. Once group training is conducted, the target of health promotion and awareness can be achieved efficiently. It is also important to note that such a solution can be very cost-effective, especially for a country like Botswana, which is already suffering from a lack of finances for national projects. Teachers can be trained in groups, and hence, a network effect can be expected that can flow from the teachers to the students and ultimately, the whole society. With respect to the training of the teachers, Vamos, Xie, and Yeung (2020) also reach the same conclusion which is stated in the earlier chapter. As per the researchers, what training of the teachers would do is to increase the promotion of healthy habits and attitude among the students.

These are the major responses that have the scope and scalability that can be adopted or implemented at a macro level in Botswana. However, there are other solutions, which should also be considered given the elaborate nature of this study. For instance, the solution of frequent physical assessment has also been favoured by many interviewees. A physical assessment would mean that students are assessed on a regular basis, and their results are shared with the school and the parents. It is manifested in the following response from a teacher:

Physical assessmentst can be useful to determine the presence of conditions such as hearing, sight, oral health, and general growth milestones. Where irregularities are noted prompt action can be taken. Currently we depend on the availability of nurses to come and conduct physical assessments. However they barely ever come for physical assessments rather they consistently come to give immunisations.If us as teachers were skilled to do some of the basic assessments then we would ensure that they are done consistently.(Interviewee-006).

The above-suggested solution is also provided in the study of Shaibu and Phaladze (2010), who evaluated the implementation of the National School health policy among primary schools. Additionally the responses to the last interview question on other information, interviewees presented key information critical to this study such as the impact of parental negligence on the general health of children. Teachers across all the schools lamented that some parents in rural Kgatleng have neglected their responsibilities towards taking proper care of their children.

One interviewee said

There is a lot of parental negligence in our area. Parents spend most of their time drinking alcohol and neglecting their parental roles. Sometimes it appears that children can go for days without knowledge of where their parents are”. (Interviewee-007)

Following on the notion of parental negligence teachers also report prevalence of teenage pregnancy in some of these schools.

Another interviewee mentioned:

It appears that our children develop sexual behaviors at a very young age because what they are exposed to at home. Some of our children do not even successfully complete high school because of teenage pregnancy. It maybe that children engage in sexual intercourse because they are left to be on their own while their parents spend most of their days drinking alcohol.(Interviewee-22)

4.6 Chapter Summary

The responses provided by the sample population provides an insight regarding the extent to which the primary school teachers present within the rural settings are positioned for the utilisation of inclusive, innovative principles to protect the children’s health rights. Interviewees suggested possible solutions such as preservice and inservice training of teachers in issues relating to health, provision of a fulltime school nurse, provision of nutritious meals at the school as well as encouraging parents to take an active role in ensuring their children’s health rights are catered for.

In response to questions regarding innovative solutions to improve the provision of school health services in poorly resourced areas, the teachers responded in favour of the induction of nurses in the schools, which might facilitate serving the students in providing basic healthcare services. The hiring of the nurse was perceived as an innovative solution because, on the one hand, it facilitated achieving the desired result of greater health indicators among the Botswana students. However,

at the same time, this innovative practice is anticipated to provide large employment opportunities in Botswana. For instance, the rural district of Botswana has been reported to lack the proper healthcare services. This problem was reported to be further exacerbated in the absence of qualified and expert nurses; therefore, placing children with the proper expertise was proposed as an effective solution by the nurses. However, with the intention of the utilisation of resources and professional expertise in a significant manner, it has been proposed that school children must be divided into different groups on the basis of attention or need they require from the nurses. Adopting this innovative strategy will facilitate nurse in contributing to the improvement of health among the students.

CHAPTER 5: CONCLUSION

This is the last chapter of the dissertation that summarizes the results of the analysis while demonstrating the limitations and potential future directions of the research. The chapter also incorporates a detailed discussion about the strategies and interventions that could be implemented for the sake of improving school health promotion programs. It includes all the key points discussed in the above chapters with recommendations to help rural schools who may want to implement findings from this current research which aims to make praxis-oriented recommendations for inclusive innovation practices by teachers in the advancement of child health rights and reduction of their vulnerability.

5.1 Summary of the study

It has been identified that schools play an important role in promoting health-related interventions among children, which may positively impact their wellbeing. The present study focuses on Botswana particularly children in rural areas, which are areas that commonly are excluded due to limited access to resources, poor infrastructure, and extreme poverty. Botswana has struggled with health issues, specifically HIV/AIDs, which was declared a public health emergency in 2005.

Children make up 1/3 of the Botswana population. The government of Botswana has made considerable efforts to manage the health crisis emanating from the scourge of previous pandemics such as the HIV/AIDS pandemic and the burden of non-communicable diseases. For instance, Botswana vision 2036, a government strategy to attaining prosperity for all has a pillar on ensuring good health and wellness for all citizens. The vision aims at guaranteeing access to health care services and encourages individuals to take an active role in choosing healthy lifestyles. In a school setting, health promotion plans are regarded as the activities that are conducted for spreading health-related awareness among staff members, students, and the communities in which the school is located. In addition, however, schools are tasked to hold and promote evidence-based teaching facilities to ensure continuous consultation among teachers, students, and parents to gain physical and psychological improvement of the children.

Nonetheless, some challenges remain, including illiteracy related to health-related aspects and the risk-taking behaviours of the students. Consequently, the number of students facing serious health issues is rising at an alarming rate, prompting a need for definitive intervention. However,

the approach of school-related activities needs the personal development and skill enhancement of the teachers and the involvement of parents and the whole community to yield desired outcomes. Overall, it is courted that school health promotion programs make significant contributions in improving the health and overall wellbeing of the school staff, families, students, and community members.

The significance of developing a health promotion and prevention program is that it enables the engagement and empowerment of individuals and communities to choose healthy behaviours over non-healthy ones. The concept consists of a wide range of interventions from social to environmental so that people can benefit and protect their health by addressing the key concerns and underlying challenges causing ill health and affecting the quality of life. Furthermore, keeping a collective approach in understanding the factors affecting the health behaviours among individuals makes it easier to develop interventions that can bring about long-term change.

Adolescence and childhood years are extremely important and have been found to have a profound impact on public health. These years in human life tend to hold a significant place as they shape their social and biological mindset and lay the foundation for upcoming health and economic wellbeing. Given the significance of this phase of human life, schools are considered as an important source or setting for the effective promotion of health while offering a comprehensive and sustainable means of reaching the population. However, there is insufficient literature that compares the outcomes of schools that have healthy policies versus schools that do not have any health policy; thus, that gap is addressed in the present study.

One of the crucial elements of health-promoting schools is the creation of an appropriate space for pupils to inspire active participation in health-related aspects of decision-making in schools. Keeping a participatory approach in the promotion of health in schools involves more than just the improvement of the health status of individuals; rather, it must also ensure the provision of resources and opportunities to develop, exercise, promote, and exert individuals' competencies within the school environment. The need for School health services is established since a school setting involves students, and young adults who do not possess the same sense of responsibility as adults, the creation of a school health services system is important to ensure

effective administration during a medical crisis. Furthermore, school health interventions contribute significantly to mitigate the health disparities among pupils.

It is established that health and learning are closely associated; this makes enhancing teacher's health literacy a key task. Health literacy develops a series of knowledge, skills, and understanding that allows individuals to effectively evaluate their life circumstances while negotiating on available services, resources, and information. Thus, by increasing the health literacy rate of the teachers, primary schools can easily promote and ensure the health and wellbeing of their students and the community as well. It is observed that extremely limited research has been conducted to identify teachers' role of beliefs and practices in promoting health among children. Therefore, to bridge this research gap, the present study is aimed at investigating the beliefs and practices of health promotion among primary school teachers by specifically considering the case of Botswana. The aim of the present study is to make praxis oriented recommendations for inclusive innovation practices by teachers in the advancement of child health rights and reduction of their vulnerability. The study specifically addresses various objectives, which include: examining the role of school based health promotion in advancing child health rights, documenting self reported beliefs and practices of teachers in rural primary schools in relation to their role and scope of involvement in protecting child health rights as well as to explore the complexities and intersectionality of teacher and health care provider roles concerning child health.

Before addressing these research objectives, based on the chosen methodology, the study provided a comprehensive literature review and covered all objectives theoretically. The literature review shows that health promotion has become a gradually leading topic in academia as it contributes to improving the lifestyle and overall wellbeing of individuals, specifically by encouraging them to adopt healthy habits and lifestyles. It is not wrong to state that health and education are inextricably linked with each other. It is mainly due to the fact that healthy individuals are likely to learn more effectively. It is found that health promotion plays a substantial role in reducing the risk of chronic and transmissible diseases that usually affect children's learning outcomes; thus, it is an important aspect to learn for teachers and the general community.

Rural settings, unfortunately, report a higher prevalence of chronic conditions and diseases as compared to their urban counterparts. These health challenges act as a menace due to people's limited access to health promotion and disease prevention programs and a significant difference in the healthcare services received. It has been demonstrated that settings in health promotion are also related to inquiring about the needs and issues of people – specifically related to health and wellbeing and taking all possible measures to maximise the prevention of diseases. The settings approach is an eminently feasible way of promoting health among individuals.

It is further observed in the review that the healthcare sector perceives schools as the key player in solving the health problems of the community. A supportive environment is therefore related to both physical and social aspects of the school setting. In addition, it refers to the surrounding where people live, their homes, the local community, and the places where they work and play. Considering the benefits, in the middle of the 20th century, various schools started teaching topics related to nutrition, oral health, drugs, sexuality, HIV/AIDS, traffic safety, and mental health to improve the wellbeing of children.

The literature review has also covered and discussed the constructs of social capital and health promotion. Collective social capital is defined as the part of a community's collective property, whereas social capital at an individual level refers to the resources that emerge due to the individuals' capacity of being a part of the social network that provides access to information and support. The benefits of social capital depend upon the social bonds, but these bonds can also damage people. For instance, closely knitted bonds within their communities are restricted to relying solely on their relatives or people of their community for support which, in turn, limits their economic progress by making them feel like an outsider in a wider society due to their lack of social bridge. Two important distinctions have been made in the forms of social capital, which leads to two types of social capital, namely structural and cognitive. Health and social capital are multidisciplinary criteria where the stories are drawn from concepts and theories in the political, behavioural, and social sciences. Social capital can impact health by influencing mechanisms like attitudes and norms, which mould health behaviours among people and shape their psychosocial networks. With the implication of social capital into health-related disciplines, it can be witnessed that the collective definitions of the concept more influence social capital in health disciplines.

Keeping a multi-dimensional approach to social capital allows addressing the gap in the relationship, a concept known as bridging social capital.

Social support has the ability to positively influence health by eliminating stress, while lack of support negatively affects health by increasing stress on the support provider. The different forms of social capital, that is, bridging, linking, and bonding, is a useful tool in determining the types of networks available to different people, which helps in making interventions by acknowledging the risks associated with unequal dispersion of return and investment across social networks in terms of involvement.

Health-promoting schools can be understood as the ones that promote both – learning and health by involving leaders, teachers, students, and the community. It is found that health-promoting schools, with the help of teachers - implements mind-body interventions that significantly reduce the level of stress, anxiety, and depression among children and improves their learning outcomes. Therefore, one cannot deny the benefits of the health-promoting school programs, which are not only limited to the children but also the entire community as well as the teaching staff. According to previous literature, one of the major objectives of health promotion programs conducted in schools is to assure the personal safety of the individuals in terms of preventing them from abduction, sexual abuse, and physical and mental harm. Nonetheless, it is being established that health-promoting schools effectively teach personal safety to their students compared to the other schools.

Inadequate and poor personal hygiene practices among children are found to be one of the biggest sources of communicable diseases and eventually high absenteeism rates and low academic performance of the students. The severity of the situation can be understood by considering that approximately 31% and 62% of the deaths are due to infectious diseases in Southeast Asia and Africa, mainly because of poor hygiene practices. In such circumstances, schools serve as a learning hub that provides awareness and a learning environment to children regarding essential hygiene practices.

Teacher professional identity is defined as the way in which teachers visualise themselves and demonstrate their skills and capabilities to others. This enables the teachers to know about themselves and their roles and responsibility towards the health of their students and the wellbeing of the entire community. In addition, it is found that a strong teachers' identity enhances their intentions to stay in the health education profession and increases their willingness to contribute to the development of the faculty while also enjoying their role as a teacher. The evidence reported that a range of factors strongly influences the appropriate designing of the health promotion programs initiated at the levels of educational institutes; these factors include political and contextual factors, the availability of a favourable environment, efficient engagement of the management of educational institutes, involvement of communities, and the beliefs of teachers and educators, regarding their potential involvement within the health promotion programs.

The literature review also highlights the participation of the community is analysed in terms of the involvement of processes, as well as activities, to empower the population for making decisions, perform actions by working in collaboration with the stakeholders regarding the health and promotion-related problems. According to the available evidence, teachers play a significant role in assuring an intersectoral collaboration. With reference to the available evidence, teachers can adopt several approaches for implementing the health promotion approaches within healthcare. Limited scientific evidence reveals that the COVID-19 is less severe among children than adults and that the children may experience mild symptoms in comparison to adults; however, there is no potential evidence that explains the role of children in transmitting the disease. School administrators, teachers, and other school staff can follow some basic principles to ensure school public health in the pandemic. To ensure a healthy school environment, schools must restrict sick students, teachers, and other staff to enter into school vicinity.

The present research was conducted for documenting the extent to which the primary school teachers present within the rural settings are positioned for the utilisation of inclusive, innovative principles to protect the children's health rights. For fulfilling the research purpose, the researchers had adopted different methodological approaches, including the research philosophy, research approach, research design, and the strategies for data collection and data analysis. The research philosophy demonstrates a set of belief and perceptions regarding the world and facilitates

the researchers in the transformation of ideas into practice (Saunders et al., 2015). Out of different types of philosophical approaches, interpretivism philosophy was considered for the present research, as this philosophy is centered on the principle to acquire in-depth understanding into the lives of participants/interviewees to extract an empathetic understanding about their actions or perceptions. This philosophy is well suited with qualitative approach and is helpful in close interaction with the participants (Saunders et al. 2009). Additionally, this philosophy was also compatible with the overall research objectives of the study.

The research approach can be categorised into several types, including qualitative approach, quantitative approach, and mixed approach (McCusker and Gunaydin, 2015). Out of the research approaches, the present research was conducted by adopting the qualitative approach, which facilitated the researcher in analysing the phenomenon with reference to the perspectives of individuals (Lincoln, 2005). With reference to the aims of the present research, there was a requirement to assess the perceptions and knowledge levels of primary school teachers regarding health promotion; therefore, a qualitative research approach was appropriate for fulfilling the research aims. In addition to the research approach, this research was conducted by considering the explanatory research purpose, such that the explanatory research purpose facilitates the researchers in developing an in-depth understanding of problems for reaching cohesive conclusions (Dodgson, 2017). In this regard, for filling the gap in research regarding the perceptions of teachers and health promotion, an explanatory purpose was adopted by the researchers.

5.1.2 Evaluating the Research Methods

The descriptive research design was selected for the present research for acquiring the perceptions of the research participants, i.e, teachers, regarding health promotion. The descriptive research design includes the description, as well as an observation regarding the subject's behaviours (Yin, 2013). For this reason, for data collection, semi-structured interviews were arranged by the researchers, and teachers working in different primary schools were asked to provide their point of views by arranging the semi-structured interview sessions. While the targeted population would have been for all the teachers in rural Botswana, the pragmatic limitations of time, resources and Covid-19 restrictions led to the sampling of 1 health district of

(say how many). In this district, wide representations of schools were sought and a convenience volunteer sample from the schools was undertaken. The intention was not to generalise to a population, hence representation is less important, but toward a theory. The sample was 22 participants. For acquiring the perceptions of the research participants, the structured interview scripts, which consisted of a range of open-ended questions was utilised for data collection. After collecting data from the interview sessions, the audio recordings of the interviews were transformed into text forms, which was followed by coding of data into common themes. The coding process also facilitated in eliminating the risk of bias due to the repetition of data and facilitated the inclusion of unbiased and accurate data. Due to the inclusion of the human subjects and collection of primary data, the researchers fulfilled ethical considerations for the present research by acquiring informed consent from the participants, respecting anonymity and confidentiality of the human subjects, and assuring the privacy of the participants by protecting the personal information of the sample population.

5.1.3 Key findings and Recommendations

The analysis of the health challenges experienced by the primary school teachers of the rural district of Botswana revealed that hunger is one of the most significant challenges for school going children in Botswana, contributing to insufficient energy, weight and muscle loss, due to which children are less likely to focus on learning. Children experiencing hunger find it challenging to provide full concentration on learning due to inaccessibility towards food and other life-related circumstances. Another reason for lack of concentration is learning disabilities contributing to mental health disorders, during which children require support from parents and other individuals present in their social circle. Moreover, due to the lack of social support, and family problems, mental health issues in schools of the District of Botswana. The negligence from parents also results in obesity, as well as unhygienic practices of children such that it was observed that children suffering from depression were reported to consume an excessive amount of food. Parental role modelling is another factor contributing to poor eating behaviours among children in rural Botswana.

The determination of the beliefs and practices of teachers in health promotion revealed that several teachers perceived that they have been playing a prominent role in health education and promotion. According to the perceptions of some of the participants, the management of the

school had identified mental health complications among some of the children. For this reason, there is an increased focus on the inclusion of *mental health awareness within subjects such as physical education and encouraging creativity among children through craft, teaching children the language of feelings etc, delivering education and information to the primary school children about the health facilitated in making decisions regarding nutrition as well as their involvement in physical activities*. The interviewees also revealed that the mental health of the school children in Botswana was also impacted by Covid 19, which further placed increased responsibilities on teachers to facilitate the students in dealing with mental illness. The teachers also reported that emphasis on personal hygiene is important for healthy living, such that focusing on personal hygiene is likely to facilitate children from communicable diseases such as fungal, bacterial, and viral infections. In this regard, teachers in Botswana perceive themselves as responsible for informing children about the significance of personal hygiene for their own health and wellbeing. In addition, other teachers perceived that giving extra time to children with learning disabilities is another significant factor considered by primary school teachers in Botswana.

The evaluation of the teacher's level of knowledge on the School health policy revealed that creative and innovative ways can be implemented in rural Botswana to evaluate the knowledge of the teachers. Here, it must be noted that no health promotion can be implemented in the schools without the teachers' active involvement; hence, it is crucial that teachers' knowledge is authentic and delivered in an exciting manner. One of the most important strategies to evaluate the teachers' knowledge is through computerised applications whereby each teacher can maintain her portal. On that portal, regular updates or tests are posted. This system can then be tied with the performance incentives of the teachers so that they remain motivated. However, due to Botswana's technological and infrastructure challenge, classroom evaluation or peer review can also serve as a short-term evaluation strategy. There is a need for the policymakers and school management to do a more critical analysis of what can be done to enhance the knowledge and awareness regarding health topics among the school students and teachers. If there is no evaluation for the teachers, then students might not get the proper education, and as a result, the whole society can be at risk.

The determination of the impact of the COVID 19 pandemic on the role of teachers in school health services revealed that teachers were well-aware of the physical, emotional, as well as psychological complications which have been experienced by children and their families due to

the COVID situation. For reducing the risk of clinical complications, the teachers have been taking and increasing awareness levels of children to take extra precautions and reducing the risk of virus in the respective towns. Thus, teachers have been willingly fulfilling the responsibilities of hygiene instructors of the respective students. Specifically, within the villages with limited resources for delivering healthcare services, the teachers understand the spread of the virus might give rise to lots of problems and is anticipated to worsen the condition, posing a burden on the national health system. The responses provided by teachers declared that they consider them as role models of students; therefore, they give respect to personal hygiene and provide awareness to the students regarding malnutrition or sanitation. The teachers are required to be trained to actively participate in health awareness at the micro-level and encouraging children regarding public health. The primary school teachers also perceived themselves for promotion of vaccination drives which is the foremost challenge⁴ to overcome during Covid-19.

5.2 Practical Implications

For decades, health of adolescents and children had been a topic of critical importance globally. There has been quite a consensus regarding the most appropriate setting to promote health. This setting is identified as schools. The study discusses the fact that childhood consists of key stages of learning and adopting a health-related lifestyle that includes physical activities as well as sports. The study discusses new approaches in detail that focuses on enhancing health awareness among students through cross-subject teaching, teacher's intervention, experimental learning setting, and other factors discussed in the study. Teaching health-related topics to students require a pedagogical and didactical framework that is based on the core concepts of health literacy (Kinsel, 2017). Preparing teachers regarding such courses improve their knowledge, increases their health competencies, develops their skills and shapes their health behaviours and habits in accordance with the school's course structure and health promotion program. The paradigm that provides the basis for health-promoting schools approaches consist of health education to improve the health and wellbeing of school users (Turunen et al., 2017), including students, teachers, non-teaching staff, along with ensuring the provision of school policies, its environment (physical and social), curriculum, along with family and community support that plays a distinctive role in linking health services to schools.

⁴ Vaccination hesitancy results in delayed rollout and maintains the vulnerability to Covid-19.

The life and health chances of children are affected by a number of factors; among these, the role of teachers/schools and parents play an essential and influential role. This study shed light on the positive benefits of health-promoting schools in the improvement of nutrition, social wellbeing, and bullying, learning and academic achievement. The learning and education measures related to health have been found to play a significant role in the promotion of health. Teacher's engagement facilitates the learning and participation in formal and informal school activities that help in the decision making process with school personnel while involving the local community (Spencer et al., 2018). Teacher's engagement and awareness help in safeguarding the health and wellbeing of children through activities and teachings from the curriculum and course work opted in the health-promoting schools. The comprehensive and integrated approach of health-promoting schools improves the personal health and wellbeing of students on different levels, including individual, professional, policy and procedural. The study conducted reveals that health promotion is a multidisciplinary subject. Its realization is favoured by multiple subjects, including medicine, educational sciences, social sciences and psychology, along with the decisions making capabilities at an administrative level. At the primary level, health promotion is a cultural and community practice due to its complexity. Since every school and community setting is unique, the adaptation of the health-promoting system becomes complex. As the study discusses, in Botswana, communicable diseases such as AIDS and tuberculosis are the major sources of illness and deaths. Hence, health promotion programs in the country must be devised to address the local community needs of health and wellbeing.

Botswana is an upper-middle-income country where early childhood education begins from 0-6 years, followed by primary education between 6 to 12 years. Junior secondary education begins at the age of 13 years, whereas senior secondary education starts at the age of 16. At the lowest level, Health Education Assistants carry out health promotion activities in the country. There are two institutions in Botswana that provide training in health education and promotion. Boitekanelo College and Ministry of Health training through Serowe Institute of Health Sciences. At the national level, health promotion and education programs are coordinated by the Department of Public Health under the Ministry of Health. The health promotion and education unit in Botswana was established in the year 1988 with the aim to coordinate the development and

implementation of health-related policies, legislations, strategies, and other guidelines for public health (Tapera & Sekis Moseki, 2018). The findings of this study can aid in devising and implementing policies to promote awareness and knowledge of teachers with respect to health promotion programs along with building and facilitating the implementation of the Comprehensive National School Health Program in collaboration with all the relevant stakeholders.

The researcher notes in the study that many of the health-related problems that affect students have their origin in the social determinants of health which cannot be solved only by health-related interventions. Rather, integrated school health is essential to provide the required support to children while overcoming the barriers that prevent them from meeting their learning needs (Tapera, & Sekis Moseki, 2018). Thus, the practical implications of the study to improve public health include using school health as the strategy as schools materially influence both health and education while determining the future wellbeing and economic productivity of the public. Since it has been settled by studying the literature that healthier children are better off when it comes to learning which transforms them into healthier adults. School health programs discussed in the study include physical activity and education, environment, counselling, social services, psychological support, family engagement, employee wellness, and community involvement; all these factors support the effectiveness of health promotion program (Lenkokile, 2016). Thus, the study can help health and education agencies to employ methods that can be effectively adopted using evidence-based policies and programs instead of relying on unsystematic procedures (Kolbe, 2019). Furthermore, the study also implicates that the extent of effectiveness of health promotion program depends upon the training and credentials of education staff, public health workforce, along school health component workforce. Thus, effectively integrating health interventions in the school setting is effective in improving health, education, and economic outcomes in the country.

5.3 The Praxis Model-A Collaborative Practice Framework

The outcomes of this study, as well as an integration of the Social Capital theory in health promotion, led to the development of a Collaborative Practice framework. The World Health Organization's Health Promoting Schools and Beattie's Health Promoting model were also used to help construct this framework. Reference was made from the Botswana National School Health Policy and Procedures Manual to include local context and relevance. Study's findings and implications are summarised as follows:

The factors that influence health outcomes are numerous and go far beyond the delivery of medical care. Many are also outside of the health ministry's jurisdiction. As a result, responsibility for advancing the achievement of the right to health must be shared across all levels of government. In order to address complex and persistent health concerns, coordinated, intersectoral action is required, including within ministries, between different levels of government, and with stakeholders beyond government. Intersectoral action in health can be supported in a variety of ways, including establishing new governance structures and processes for advancing shared goals, establishing an accountability framework that outlines participants' responsibilities, and providing a clear mandate for intersectoral action by relevant government agencies and authorities. The techniques and structures used to formalise intersectoral and intergovernmental collaboration vary across countries and are affected by existing institutions, traditions, and constitutional arrangements, as well as the specific priorities pursued. In order to address diverse health priorities, governments may opt to invest in a variety of institutions and processes that vary in scope and focus. Some intersectoral projects are framed primarily in terms of the health advantages they want to achieve, while others are framed in terms of a range of linked economic and social goals. Securing high-level political support to an intersectoral effort is critical, and it may assist to decrease resistance from ministries whose interests may conflict with public health. A successful cross-sectoral cooperation involves active engagement and goodwill from all parties. Formalizing the cooperation in a declaration, memorandum of understanding, or other framework document that sets out common aims and essential tasks for each partner can improve the political commitment of partner ministries. When multiple levels of government are engaged, each level's distinctive legal status, legislative powers, and comparative advantage should be evaluated. · WHO has outlined several practical measures that health ministries can take to enjoy the benefits of an intersectoral approach by collaborating with other ministries. Many effective intersectoral projects, such as disease prevention, lowering health inequities, and enhancing food and nutritional security, have benefited from governance reforms.

The diagram below represents a possible continuum coordinated intersectoral framework for improving school health promotion in Botswana's rural schools, which includes teachers, pupils, parents, the Botswana government, and the legislature:

Table 6

CONTINUUM OF COLLABORATIVE PRACTICE FRAMEWORK FOR SCHOOL HEALTH PROMOTION			
LEVEL OF ENGAGEMENT	CONSULTATION	INVOLVEMENT	PARTNERSHIP AND SHARED LEADERSHIP
SCHOOLS	Pupils and teachers	Teachers, Parents, and Ministry of Education and Health	Government of Botswana National Assembly
ORGANISATIONAL DESIGN AND GOVERNANCE	Data gathering through surveys	All stakeholders in health promotion	Pupils and Teachers
POLICYMAKING	Collect intelligence information from focus groups	Analyze recommendations to inform policy	Policy shift and allocate resources for Implementation

Adapted from (<https://www.healthaffairs.org,2022>)

The significance of assisting teachers through preservice and in-service training, improving parent participation, and encouraging children to become their own health resources has been recognized as a benefit of intersectoral collaboration in school health. The following figure illustrates an integration of key stakeholders and their involvement in the coordination and implementation of an inclusive health promotion strategy.

Table 7

COMMUNITY	Parental Involvement	
SCHOOL MANAGEMENT	Teachers	Preservice and Inservice Training
	Pupils	Train Health Champions
DISTRICT COORDINATION	District Health Management Team	
	Education Regional office	
NATIONAL COORDINATION	Ministry of Local Government	
	Ministry of Health	
	Ministry of Basic Education	

In conclusion an inclusive, continuous and collaborative coordination and implementation of school health promotion will contribute to better knowledge, maintenance, and development of school health across groups, allowing students to perform better in school. Problems arising from poor health, such as a higher likelihood of school failure, poor concentration, grade retention, and dropout, will be a thing of the past with effective strategies, health programmes, and appropriate school interventions. These strategies, health programmes, and appropriate school interventions can foster better academic performance, prevent destructive behaviour, and promote positive health practices.

5.4 Theoretical Implications

The theory of social capital, as discussed in the study, views social relationships as the resources that help in the accumulation and development of social capital. The study findings support the theory of social capital to a greater extent. After careful examination of the data findings and thorough review of the literature, the research proposes that a stable family and community support facilitates the educational attainment of an individual while strengthening the development of highly valued skills and credentials (Machalek & Martin, 2015). In addition, while studying the literature regarding the promotion of health-related education in the school setting; it has been observed that by keeping the construction of social capital in mind, countries can benefit from the health-promoting schools and health promotion education program. Since the effective integration of health promotion activities in the school setting requires a collaborative approach involving school staff, health care workforce, government personnel and local community, the establishment of rewarded relationship among these social constructs is extremely important and critical. At the societal level, the social capital theory discussed supports the work of Robert Putnam (1993, 2000); however, the link between education and social capital, as put forth by Bourdieu (1986), is supported through the study by linking policy making regarding the health promotion and education programs and through the interaction between human and social capital (Schuller & Theisens, 2010).

The theory of social capital, as a driver for inclusive innovation, when implemented in the field of health promotion, adds new knowledge regarding the development of social network interventions to meet the need of children in a school setting. The concepts of bonding, bridging, and linking are beneficial in identifying the availability of networks to children in different schools

and to analyse the extent to which these networks affect or enhance the health of students and other staff. On a wider level, social capital contributes to the development of the community and is useful in determining the health-supporting environments while providing a guideline as to achieve them (Eriksson, 2011). Hence, the research supports the theory of social capital at the individual and community level in building effective health promotion programs to be implemented at schools. The study supports the idea that on the individual level as social capital has been found to be fruitful in developing norms and values supporting rightful health promotion education at the school level. The effect of collective social capital on health promotion has been found to be evident. However, the study emphasises that the extent to which the involvement and engagement of the community must be in integrating the health promotion education in schools falls behind the actual involvement of the local community and other players in the extension of education regarding health in schools in Botswana. Thus, as the social capital theory suggests, ensuring health requires collective relationship building among all stakeholders to yield measurable results in creating health awareness and safeguarding public health through health-promoting schools and health promotion education and programs at the school level.

5.5 Challenges and Limitations of the Study

Over the past few years, several initiatives have taken place to achieve greater integration of children-oriented health promotion activities influencing both the individual and social determinants of health. A health-promoting school is one such example. However, there is little evidence present to identify the way for effective and comprehensive implementation of such an integrated approach to affect the health of youth and children. A considerable gap has been identified in terms of interventions to provide the potential benefit of health in children. Recent reviews in the field have made it evident that a comprehensive and integrated approach to health promotion in the school setting can considerably improve a child's health in a number of areas; however, the implementation of these health promotion programs at the school level requires an active engagement of multiple stakeholders along with the adaptation of the program at a local level and within a wider educational and public health system (Pearson et al., 2015). On the contrary, however, most health-promoting school focus on one domain, that is the curriculum. Whereas, as far as school, teacher's engagement and community relations are concerned, only 28 per cent of the programs were found to involve parents, school staff, and community in general in

the implementation of health promotion programs in schools (Deschesnes, Martin, & Hill, 2003). The main relationship between the schools and community health is related to the services for the purpose of emergency response; other than that, there is little evidence regarding the productive partnership between the two constraints. The World Health Organization's experts committee has also emphasized that the concept of health-promoting schools is much more advanced than its actual implementation. A vast majority of health-promoting schools' programs focuses on using individual strategies to develop personal skills among students and children. On the contrary, there are only a few that focus on the overall school environment or community participation that serves as a limitation to the concept. There are two possible explanations for the lack of implementation of the concept: one being the complexity regarding the implementation of the health promotion concept in a meaningful way whereas the second relates to the novelty or the fact that there is little information present regarding the evaluation of the results generated through health promotion programs.

Another limitation of the study involves the case of public primary schools, which are different from other schools in terms of structure; therefore, comparison with other schools might become difficult. Furthermore, the structure of rural schools is considerably different from that of urban (Kremser, 2011). Other factors that serve as the major impediments in the implementation of health promotion school programs include lack of community involvement, inter and intra sectoral collaboration, human resources, inadequate infrastructure and inconsistent policy-making and management approach (Fathi et al., 2014). In addition, poor policymaking and legislation can also limit the scope of health promotion programs at schools and thus hindering the purpose of the promotional program in educating the children. Likewise, limitations in implementing the health promotion education program include untrained teachers. Since the role of teachers is essential in the quality delivery of health education and promotion programs (Smith, Potts-Datema, & Nolte, 2005). An overwhelming challenge is a large number of teachers in the workforce who must be provided with professional development experience to reflect the skills and knowledge that has been reflected and demonstrated during the training sessions. The localized version of health-promoting school programs has some prominent faults that require immediate revision to fulfil the limitations identified in the effective implementation of policies to sustain school health programs based on the country's objectives and capacity.

Other limitations of the study include geographical constraints. The researcher has kept the focus of the study to the Kgatleng district of Botswana. Due to budget and monetary constraints, the geographic area has been limited to one district. Furthermore, around this district, 22 schools have been considered as the sample size of the study; however, the result achieved cannot be fully considered as the true representation of the entire country of Botswana. Furthermore, the results are purely derived on the basis of the participant's responses. The responses received were purely based on the participants understanding of the research question and their perceived understanding of the research topic. Therefore, data reliability cannot be fully guaranteed. In addition, due to the lack of literature regarding social capital and the use and prevalence of health-promoting schools and health-promoting and education programs in Botswana, the researcher has limited options to base the foundation of the study. The data collected and the research approach kept during the entire process is significantly based on prevailing trends regarding the health promotion and health promotion schools globally, while the trends analysed during the research process are discussed based on the comparison between the limited data available relating to Botswana and other global countries. Data interpretation is limited to the researcher's knowledge and capability in understanding and interpreting the available information, along with the credibility of the statistical instruments used. Since the researcher has no prior experience in conducting the research, data interpretation may have a limited professional touch to it.

Time also served as a limitation as the research process has a limited time frame to investigate the role of social capital and health-promoting schools in rural Kgatleng, along with determining the role of teachers in the effective delivery of health education and promotion in schools. Furthermore, there was a limited budget to carry out the research process, for which purpose the researcher was bound to focus on a limited sample size along with limited resources to support the process of determining the sample size, data collection, and data evaluation. Lastly, the researcher's own shortcomings and flaws, along with little experience and knowledge regarding the research process, also limited the presentation of the research outcomes.

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