



Public-Private Sector Partnerships in Healthcare System Delivery for Developmental Disorders in Sub-Saharan Africa

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Developmental disorders prevalently caused by infections, perinatal complications, genetic problems, nutritional deficiencies, traumas, amongst others have been on the rise and make children to be at the verge of grave health challenges in the African continent. It has been a norm seeing the government being at the centre or being instrumental to healthcare system delivery with enormous for-profit private partnership and meagre voluntary services. Thus, this study explored the nature and status of government and a network of private stakeholders' involvement in delivering healthcare to developmental disorders' domain in selected sub-Saharan African countries. The study adopted participatory governance as a theoretical thrust. A qualitative method was adopted for the study. Hence, semi-structured interviews and desktop research method were adopted for data collection. Purposive sampling was adopted for selection of the 21 participants. The interviews were coded, and themes were generated, and analysed using content analysis. The findings of the study showed that the government remains a main policymaker for the provision of healthcare in African countries and relying mostly on a few profit-oriented stakeholders whose aims mainly focus on general healthcare services without or with less attention to developmental disorders. It is recommended that the government should incorporate a wide network of private stakeholders whose participatory level needs to be raised through adequate awareness, motivation, monitoring and evaluation.

Key words: *(Neuro) developmental disorders/disabilities, Public-private partnerships, Healthcare in Africa, Meta-analysis, Participatory governance*

Introduction

Developmental disorders or disabilities inflict huge personal, economic and social costs as a result of their manifestations in early age and its management for a lifetime. Many children with developmental disorders or disabilities such as *Autism Spectrum Disorder (ASD)*, *Attention Deficit Hyperactivity Disorder (ADHD)*, *Disruptive Mood Dysregulation Disorder (DMDD)*, *Conduct Disorder (CD)*, *Attachment Disorder (AD)*, *Disorder of Written Expression (DoWE)* among others, may suffer inadequate healthcare services in Africa due to many factors such as poor economic growth, and a dearth of necessary infrastructure. Access to standard education, nourishing food, good shelter, as well as enjoying splendid daily experiences or activities and other privations may be hard to obtain. The extent of such situations that children with developmental disorders are subjected to or faced with has prompted the United Nations to establish the *Convention on the Rights of Persons with Disabilities (CRPD)* to increase awareness and policy on the right of people with disabilities (WHO, 2011).

Worldwide, the prevalence rates of disability are on increase though with varied report. The World Health Organization's World Report on Disability estimated that 15% of the world's population has one type of disability but certainly, the range varied from under 1% to above 30% subjected to the research instrument and approach employed (WHO, 2011; Vargas-Barón, et al., 2019). Disability as both a personal and national phenomenon is now a crisis which Africa like many other developing countries are battling with, though with varied challenges in terms of developing, and delivering of effective healthcare services. These challenges are mostly socio-political, economical, personal and attitudinal. This implies that lack of political will, absence of economic wherewithal, absence of policy for social accommodation of good healthcare delivery, and personal acceptance or rejection of existing policy-come-lack of understanding of the need to provide healthcare that can attenuate precarious health situations of people with developmental disorders, are parts of the main challenges facing Africa. While many African countries have been advocating and campaigning about stemming down the scourge of malaria, tuberculosis, hepatitis, poliomyelitis, HIV/ AIDS among others, using their policy and blueprints as well as adapting some from international organisations such as World Health Organisation (WHO), Joint United Nations Programme on HIV/AIDS (UNAIDS), and United Nations International Children Emergency Funds (UNICEF), much has not been done about development disorders which are affecting a high percentage of African children. This suggests that it is hard to spot effective policy in many national healthcare plans and thereby makes it difficult to access and evaluate the nature and status of health service delivery for developmental disorders.

The effects and implications of developmental disorders/ disabilities are global, but Africa remains one of the continents that is highly affected. In a study conducted from 1990 to 2016 in 195 countries, Global Burden of Diseases, Injuries, and Risk Factors reported that:

the prevalence and years lived with disability (YLDs) for development disabilities among children younger than 5 years... The global burden of developmental disabilities has not significantly improved since 1990, suggesting inadequate global attention on the developmental potential of children who survived childhood as a result of child survival programmes, particularly in sub-Saharan Africa and south Asia (Olusanya, et al., 2018: 1100).

Despite the magnitude of this burden, there is still lack of scientific information and awareness on many disability issues, and there is lack of document and agreeable information, comparison of trendy issues on the disability even with few evidences that some countries have policies and answers to tackle the menace as well as compiled information to satisfy what people with disabilities need (WHO, 2011). In order to tackle the situation with a few available facts, the resolution 58.23 of the *World Health Assembly on Disability, including prevention, management and rehabilitation* tasked the Director-General of the World Health Organization (WHO) Director-General to come out with report on disability in the world. Knowing the benefits of partnership in bringing together different sectors, exerting political will, increasing awareness among others, the report was done in collaboration with the World Bank. Therefore, the *World report on disability* targeted both public and private sectors as well as individuals such as “policy-makers, practitioners, researchers, academics, development agencies, and civil society” (WHO, 2011: 33). The result of such collaboration was outstanding as 370 experts such as peer reviewers, regional consultants, editors, and contributors, from 74 countries around the globe, participated. The above collaboration no doubt revealed many issues about people with disabilities and disabilities themselves, and showing the necessity of partnership between government agencies, non-governmental organisations and private individuals. The question worth answering is how many countries in Africa have been practicing policies or created atmospheres where such partnership can be operationalised to ensure effective health delivery to children with disabilities?

Developmental disorders/ disabilities and African children

African children especially those living at sub-Sahara region with 45 countries, according to WHO’s classification, are battling with various developmental disorders (WHO. 2006). Recently, neuroscience research has established the significance of brain development in early childhood as well as the need to give succor to both parents and other caregivers to achieve a goal of making children with developmental delays and deficits attain full and personal potential (Black, et.al, 2004; Vargas-Barón & Grantham-McGregor, 2017). Meanwhile, developmental disorders/ disabilities depict a range of earlier childhood developmental disorders / disabilities up to the first 5 years, though it may go beyond that if intervention is not effective. The term *developmental disorders/ disabilities*, also known as *developmental difficulties*, cover a range of developmental deficits or delay that cut across language, socio-emotional, cognitive, behavioural, and neuromotor development (WHO, 2012). According to WHO, *young children* as well as *early childhood* fall between ages 0-3; while Olusanya, et al.

(2018) pegged it at 5 years. This period is commonly characterised by speedy growth, and whereby the brain also develops to accommodate nurturing and any sensitive stimulation, and it is critical for earlier childhood education and subsequent knowledge and skill acquisition (Olusanya, et al., 2018).

In Africa, people's low level of education and awareness on many social issues including children's health are practically militating against reduction of burden arising from these disorders. Coupled with illiteracy is the stigma against the affected children as well as lack of effective childhood health care policies which further make African children suffer the disability burden due to inadequate interventions unlike their counterparts in developed nations. In a study conducted on the stigma commonly experienced by the caregivers of children with developmental disorders, Tilahun, et al. (2016) confirmed that many caregivers are shameful to be identified with the condition of their children, and also that they are treated separately, and as a result making them to keep their children's condition in secrecy, meaning that their disabilities are concealed from the public. It can also be inferred that the children are sometimes isolated from people unlike their typically developing counterparts. The study further reported that most of the caregivers, who had received varied and pieces of advice or interventions from the *spiritualists, traditional healers* or from *Orthodox Christian centres*, are mostly affected. This establishes personal and attitudinal issues mentioned earlier as ignorance of some people, their negative attitudes towards children's disorders are usually resulting in the stigmatisation of the children and their families sometimes. Furthermore, the report buttressed some social maladies like a high rate of illiteracy, cultural background, low level of scientific breakthrough and knowledge, then superstitious beliefs that also affect general wellbeing. Meanwhile, in line with individual understanding and attitudes of some people, these disorders are mostly explained through the mixture of biomedical and supernatural causes and thereby making positive understanding and positive attitudinal changes towards their disorders a mirage. Generally, developmental disorders may seem insurmountable when the government, private stakeholders, and individuals are acting like separatists, and keep doing trials and errors, that is, without solid policy that will synergise actions to lessen burdens associated with language, vision, hearing, affective, cognitive and psychomotor domains of the affected children. Succinctly, some findings have indicated some unmet needs for children with disorders (Tilahun, et al., 2016). The authors reported lack of equal education provision as number one on the log, and followed by lack or inadequate treatment from the health professional, absence or inadequate financial aid, and spasmodic help from experts in supporting the development of their children. Meanwhile, the coping mechanism of these caregivers has been found to be from their family members, health practitioners, friends, and by praying (Tilahun, et al., 2016).



Public–Private Partnerships and its needs for developmental disorders in Africa

Public Private Partnership (PPP) is difficult to define due to the different structure it takes in different countries and how it continues to evolve (Sachs & Tiong, 2007). Different acronyms such as PPP, PFI, PSP suggest what PPP is (Forrer, 2010; de Bettignies, Ross, 2009; National Treasury PPP Unit, 2004; Black, et al., 2004); however, Nwangwu (2019) asserted that PPPs entail prolonged relationships between the private sector entities and the agencies from the public sector in which part or all issues attached to construction, designing, financing, operation and management of public infrastructure as well as utilities which have been traditionally and solely being under public sector's management, are therefore jointly undertaken, shared, and contractually maintained by both the private and public sector, with aggregate of risks that each party can effectively bear. PPPs for some decades have been embraced by many governments around the globe (Raja & Narain, 2011), consultants, global institutions, and many national governments, the European Union, Developmental banks, and donor agencies who mostly offer subsidies to make available public finance to PPPs (Hall, 2019). The UK has been identified as the pioneer of PPP practices as the country since 1990s started funding its public infrastructure using PPP mechanism (Heald & Georgiou, 2011; Bruchez, 2014). Importantly, in developing countries, public or government-owned utilities have failed to provide needed services to the populace notably since 1990 due to issues such as lack of transparency, underpricing, poor services to the citizens, unwarranted or damaging political interference, low productivity, corruption and succumbing to public pressure to lower prices beyond normal for the benefit of even the richer citizens and not the poor ones (Jerome, 2004; Harris, 2003; Hall, 2019; Farlam, 2005). Additionally, literature has shown that Public Private Partnership (PPP) has been seen at the time as magical tool which can transform infrastructure to a satisfactory level required by the citizens but the contrary has been indicated. For instance, Hall (2019) reported that PPPs are costly and they are not the best means of financing infrastructure; and in another way, PPPs make government to neglect spending on other public services, and make the government to hide their borrowing because of the need to offer private companies some long-term state guarantees for profits.

While some disadvantages of PPPs cannot be ruled out in sub-Saharan Africa as well as in other regions of the world, for some tangible reasons, there is a need for joint partnership between the public and private stakeholders in delivering good healthcare for children with developmental disabilities (Farlam, 2005). First, the sub-Saharan Africa which is 11% of the world's population has half of the world's mortality rate of children less than age 5, and 24% of world disease challenges in terms of financial and human costs [40] due to poor healthcare delivery in the continent. Similarly, donors are more associating with other health challenges like tuberculosis (TB), cancer, HIV/ AIDS in Africa with little attention to developmental disorders ravaging a large number of children in the continent. In addition, the healthcare conditions of sub-Saharan countries are considered the worst in the world (IFC, 2007a; Thadani, 2006; Olusanya, et al., 2018) due to low/ low-medium income level, inadequate health

infrastructure and personnel among others. These anomalies have therefore made various private (for profit, and non-profit) stakeholders to be playing various roles in African healthcare service delivery and they are still needed for as long as possible, despite the fact that many sub-Saharan countries receive aids from external donors, private sources or households finance up to 60% in delivering or managing healthcare infrastructure and services in Africa with 50% of total money spent on health returns to the private providers (IFC, 2007a; Asogwa & Odoziobodo, 2016).

A study conducted by the International Finance Corporation in collaboration with McKinsey and Company confirmed that before healthcare needs of sub-Saharan Africa can be met, \$25-\$30 billion will be needed for investing newly into healthcare assets in the next decade, and these assets will include distribution warehouses, clinics, and hospitals. The IFC report therefore indicated that in sub-Saharan Africa, the private sector is crucial to meet the said healthcare needs, and that before the private sector can fully function and play a tangible role in closing the healthcare gap in Africa, there are some change in policy which both the government and the international donors must make (IFC, 2007a). Based on the growing healthcare needs of this African region, the WHO also estimated \$35 billion such care would cost, which suggests a growing trend which government cannot bear except with the aid of a network of stakeholders [WHO.2006]. Africa, especially the sub-Saharan Africa, is in a great health crisis despite huge aids and donors being received locally and internationally, and focus on provision of finance, infrastructure, and services for the sub-Saharan countries have made certain healthcare delivery more accessible (not sufficiently good), but there are necessities to change some policies to accommodate a wide range of stakeholders. This is in addition to private donors, for profit or for non-profit private service providers who altogether can also finance, render services, and advise government at all levels. Meanwhile, it is a novel idea to explore health-related PPPs in sub-Saharan Africa as many countries have no policy, experience, wide penetration of private sector, fiscal ability among others to consider health-related PPPs (ADBG, 2017). Despite the few disadvantages of PPPs (especially when mishandled), one of the advantages of having wide network of stakeholders on developmental disability is mostly about creating a spirit of inclusivity and communalism through the ability to reach people in the grassroots with necessary supports, and thus resulting in dedication and profound results.

The nature and the needs for government and private stakeholders on developmental disorders

The governments of sub-Saharan Africa countries have enormous challenges in providing effective healthcare services to their people. Many challenges have been spotted, and the list includes a dearth of health facilities/structure, a poor state of human resources and management, inadequate salary, remuneration and motivation, lack of fair and long lasting financing of health care, disparity in economic and political relations, Nigerian state's policies of neo-liberal economy, embezzlement/ corruption, illiteracy, and inadequate government spending on health, "high out-of-pocket expenditure in health and absence of integrated system



for disease prevention, surveillance and treatment, inadequate mechanisms for families to access health care, shortage of essential drugs and supplies and inadequate supervision of health care providers” (Timothy, et al., 2014: 12).

The above problems have a negative impact on general healthcare delivery including health services needed by children with developmental disorders, and the best time to prevent the root causes of developmental disorders/disabilities which often hinder brain development throughout one’s lifetime, is during the earlier childhood and infancy. Essentially, the magnitude of what can be named the nature of developmental problems is required to understand and determine an accurate match between what is needed by the affected children, their families as well as their communities (WHO, 2012). Within this precinct, healthcare for children with disabilities is an avenue for government, private individuals and non-governmental stakeholders to be in partnership even with their similar or dissimilar socio-economic, political and individual ideology. This is a metaphor of making a rainbow out of a colour (which entails that government policy needs include a network of stakeholders like the NGOs, the researcher, the caregivers) even when they are separate entities but working together to achieve a particular healthcare goal.

Due to inadequate healthcare in Africa, healthcare therefore must incorporate children’s development, their promotion and monitoring, as well as prevention and early identification of risk factors linkable to developmental problems, and taken into cognizance early interventions (WHO, 2012). In addition, adequate, expertise and required skills and knowledge on how to deliver good health care services for these children must become a model governing healthcare delivery in Africa. Any model therefore that will function adequately in this regard will also require the presence and fusion of functions of the government (at all levels, that is: the local/ municipal, the state/ provincial, and the federal/ national), the private individuals (that is: the caregivers, the researchers, educators, the medical experts etc.), and the private stakeholders (such as the NGOs, the entrepreneurs / investors, the national /multinational companies, the local clubs/ associations etc.). Many African countries may not have a precise healthcare delivery system that suits the need of children with developmental disorders/ disabilities, however, the national governments have been in the frontline shouldering the generality of healthcare delivery policy as observed in many African countries, however, and there is a need for adequate representation of other stakeholders. As indicated in the model, the main actors can be identified.

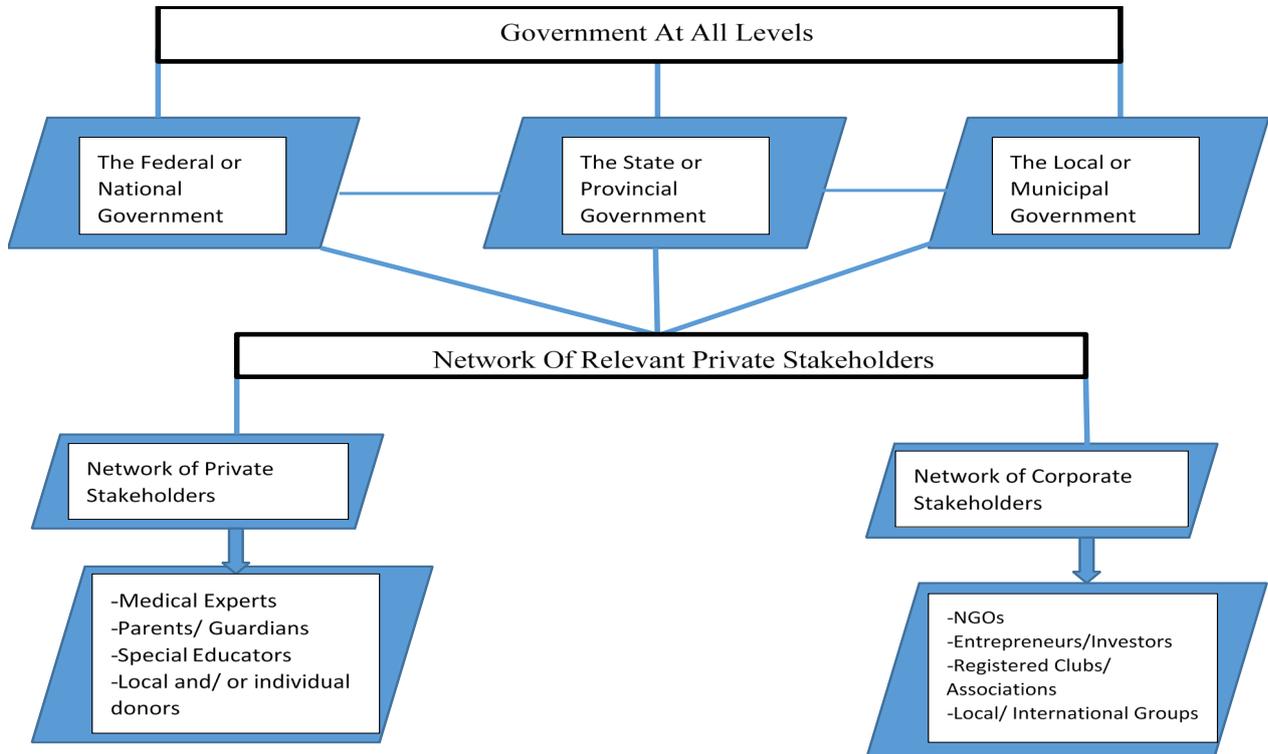


Figure 1. Interpersonal networking model of key players in healthcare delivery system for developmental disorders / disabilities (Source: Author)

Figure 1 implies that government is at the apex of policy planning, policy making, policy execution, policy evaluation and policy amendment concerning the healthcare system including provisions for children with developmental disorders, but collaboration of other relevant stakeholders are required. This implies that the involvement of private individuals and private stakeholders are essentially required. In this study, both private and corporate stakeholders are considered as social actors who usually get involved in healthcare delivery due to personal reasons or by external motivation. This model may be different from other models which explain both private and public partnership on healthcare delivery, but this model focuses on how individuals, groups and NGOs are significant to healthcare delivery targeted at developmental disorders as the precarious state in which developmental disorders have put many African children, has been reported. The Global Research on Developmental Disabilities for instance, carried out study between 1990-2016 on developmental disabilities among children not older than 5 years across 195 countries and territories. In their meta-analysis Olusanya, et al. (2018: 1100) reported that:

Globally, 52.9 million (95% uncertainty interval [UI] 48.7–57.3; or 8.4% [7.7–9.1]) children younger than 5 years (54% males) had developmental disabilities in 2016 compared with 53.0 million (49.0–57.1; or 8.9% [8.2–9.5]) in 1990. About 95% of these children lived in low-income and middle-income countries. YLDs among these

children increased from 3.8 million (95% UI 2.8–4.9) in 1990 to 3.9 million (2.9–5.2) in 2016. These disabilities accounted for 13.3% of the 29.3 million YLDs for all health conditions among children younger than 5 years in 2016. Vision loss was the most prevalent disability, followed by hearing loss, intellectual disability, and autism spectrum disorder. However, intellectual disability was the largest contributor to YLDs in both 1990 and 2016.

Between 1990 and 2016, it was reported that all countries except North America has a decrease in developmental disabilities among children who were 5 years younger; and in sub-Sahara Africa, there was an increment in developmental disabilities among children by 71.3%, while in North Africa and the Middle East it was estimated at 7.6%. However, the highest and lowest rate of children with developmental disabilities in 2016 were found in South Asia, and North America respectively (Olusanya, et al., 2018). The above estimated African children with a disability may be heartbreaking but the figure vividly illustrates the essence of having an effective model and partnership between African governments and the private individuals, groups and NGOs in curbing or reducing developmental disorders as this paper advocates. This model does not necessarily advocate for a separate health policy or government agency (but it can be enshrined within the main system), and thereby suggesting a well-spelt policy, blueprints, and other mechanism on developmental disorders/disabilities to deliver good healthcare for the affected individuals.

Theoretical Framework: Participatory Governance

The theoretical framework selected for this study is known as *Participatory Governance Theory (PGT)*. This theory as a form of governance theory emphasises the practices of voluntary participation in democratic governance. Within the academic communities especially in political sciences, some scholars believe that interests in participatory or collaborative governance are increasingly becoming crucial topics (Fischer, 2012). Essentially, this theory aims at deepening the need of citizens to participate in some processes embarked on by the government through examination of traditional views concerning assumptions and practices which generally make real participatory democracy difficult to achieve (Fischer, 2012). Through representation, stakeholders can participate in governance directly and indirectly by involving in planning, decision and policies making on vital issues that are of interest to them (Quick & Bryson, 2016).

Essentially, stakeholders were considered to be organisations, persons or groups that may influence policy decisions as well as being affected by decisions arising from such policy (Quick & Bryson, 2016). In this study, stakeholders in governance are considered beyond being citizens alone as many aids and efforts at combating a disease scourge (or any other national disaster) may even come from individuals, groups, association and multinational organisations from another country. Examples are aids from business moguls, investors, entrepreneurs (like The African Business Coalition on Health (ABCHealth) –initiated by the Aliko Dangote

Foundation in collaboration with GBCHealth, the Bill and Melinda Gate's Foundation, Mo Ibrahim Foundation, aid from African Union (AU), and aid from the World Health Organisation (WHO) among others. These aids may change the face of existing government policy on certain issues (Quick & Bryson, 2016), but principally it implies that the government is collaborating with any individuals, groups or associations by making such collaboration accessible (non-complicated).

In addition, partnership of this nature allows citizens to participate in policy planning, policy making, policy execution and evaluation among others. What is also critical is the motivation or motive of those participating which needs to be understood by government and private collaborators in order to appreciate an individual's contribution to effective social or political administration. In a study conducted in Stockholm (Sweden) on urban renewal, the motives of participants in that program were classified into three categories: "(a) Common good motives concerned improving the neighborhood in general and contributing knowledge and competence. (b) Self-interest motives reflected a desire to improve one's own political efficacy and to promote the interest of one's own group or family. (c) Professional competence motives represented a largely apolitical type of motive, often based on a professional role" (Gustafson & Hertting, 2016).

In this study, the three motives can also work but may not be naturally acted upon especially where many citizens are illiterate (or with low-level of education), less patriotic (may be due to bad governance), and engaging in economic-based migration. However, this theory provides some possible advantages that are accruable to reduce burdens of developmental disorders. For the government, participatory governance offers an opportunity for government to network a wide range of intellectuals, social actors, individuals, groups, NGOs etc. to help design, execute and evaluate policy and action on health care delivery for children with developmental disorders. For the participants (that is, the collaborators), being competent or being professional may not come first, but their interest, and motives to be representing or helping certain people or community (Gustafson & Hertting, 2016) does. Generally, a network of people or individuals who practise participatory governance are based on labouring to make people have the power to dialogue with their policy maker which is mostly the public leaders, and therefore not to merely to be speaking for citizens who are either poor or marginalised (Fischer, 2012).

In addition, this theory works better in democracies, and it can explain the process of public and government engagement [Roberts, 2004; Jacobs, Cook, & Carpini, 2009). Participation, however can be discreet or limited (Fischer, 2012) and the context in which public-government collaboration works is broader as it involves both informal and formal processes concerning decision-making and how domains are managed as regards the concern and interest of community (Asogwa & Odoziobodo, 2016; Kooiman, 2003; Fischer, 2012). As presented in Figure 1, collaboration of this type involves a broader network of people which include public agencies (Fischer, 2012), an assembly of businesses, agencies of government, nonprofits,

among others (Goldsmith & Eggers, 2004; Agranoff, 2007; Provan & Patrick, 2008; Fischer, 2012). Meanwhile, it has been ascertained that the scope of government responsibilities has called for public participation in healthcare delivery for the children with developmental disorders (Osborne, 2010; Bryson, et al., 2014). One may however consider practical and theoretical aspects of what make up relevant and lawful public participation; as well as a nexus of diversity with representation and inclusion; the nature and appropriateness of role being played by varied kinds of knowledge, and expertise arising from participation; and the problem of designing processes with an adaptable and suitable context for participation (Bryson, et al., 2014). Notably, *PGT* offers ways in which citizens can participate actively and meaningfully in delivering social services, and filling “institutional voids” (Fischer, 2012) which are in the African health sector.

Method

This research adopted qualitative and desktop methods, and purposive sampling was used to select the participants who are heterogeneous in nature (Dudovskiy, 2018). Semi-structured interviews were conducted for 21 individuals from three participating countries (Kenya, Nigeria, and South Africa), and their views and opinions were augmented desktop research design. The two methods were found appropriate as the former helps to interpret lived accounts and stories of people as well as for drilling deeper into experience accumulated from people’s social world (Silverman, 2005; Vithal, 2008); while the latter, as a secondary data source helps to add more facts to qualitative data using established information relevant to the research focus.

Participants of the study

The participants comprised 4 senior health workers from public hospitals, 5 senior health practitioners from private hospitals, 5 caregivers (4 women, 1 male with children with developmental disorders), 4 childhood and developmental researchers, and 3 childhood health related NGO directors/coordinators from Kenya, Nigeria, and South Africa. The participants were recruited through the snowballing process, and the criteria used to determine their eligibility were vast experience in developmental disorders, being acquainted with the African health sector, and private partnership framework. The interviewees were anonymised and coded: CAR (n=5); PHW (n=4); PRHW (n=5); CDR (n=4); and NGODC (n=3) denoting Caregivers, Public Health Workers, Private Health Workers, Childhood Development Researchers, and NGO Directors or Coordinators respectively.

Data collection and analysis

Semi-structured interviews were employed to collect data for this study, and due to distance constraints to have face-face interviews, Zoom was used to conduct some interviews. However, some respondents with internet disruptions and time constraints participated via email with all

necessary backgrounds to the study, and interview questions sent to their email addresses. While the Zoom interviews were recorded and transcribed, the email interview responses were subjected to internal validity by cross-checking their relevance to the questions and the background information supplied. Themes were generated, and thematic analysis were carried out on each of them in line with considerations and necessities of the qualitative research approach mentioned by Silverman (2013). In addition, relevant analysis of literature about public and private partnership in healthcare delivery in some African countries was also carried out. The study adhered strictly to ethical standards as defined by the research institution of all authors. In addition, all participants consented to their participation in this study with agreement that they should be anonymised.

Findings and discussion

The findings and discussion of findings are carried out simultaneously, and followed by an analysis of results from the desktop research approach used in this study.

Qualitative results

Developmental disorders pose critical challenges to the African healthcare delivery system

The majority of the respondents affirmed that apart from other health challenges like cancer, Ebola, tuberculosis, malaria, and HIV/ AIDS, developmental disorders like autism spectrum disorder (ASD), dyslexia, hearing loss, intellectual disability, and attention deficit hyperactivity disorder (ADHD), have all compound the challenges being faced by both private and public health agencies, health workers and caregivers, especially the parents of these affected children. For the health agencies, lack of precise models, plans and policies coupled with inadequate health infrastructure and insufficient personnel, specifically meant to tackle developmental disorders in children, are the main challenges. For the caregivers, accessing adequate and affordable diagnoses, treatment and other interventions are the main challenges. This confirms what Timothy et al. (2014) listed as challenges to good healthcare delivery. The above question received affirmation and according PHW 4: "...developmental disorders are real and they serve as another health problems in Africa but it seems we have not seen them the way we saw HIV/AIDS, Ebola... All PRHW, NGODC, CAR, and 3 among CDR also established that developmental disorders are contributing other health challenges to sub- Sahara Africa.

Specific healthcare delivery system for developmental disorders or disabilities

A question was asked of whether government has a modelled plan or system in place that is meant for developmental disorders alone or for general childhood diseases and the responses reechoed an absence of a healthcare delivery plan, policies and model for lessening the burden of developmental disorders among children. Though it was acknowledged that the government

has some plans for delivering healthcare for children, no system has been put in place to strictly focus on developmental *disorders in respondents' countries*. One of the caregivers among (CAR N=5) lamented thus: *“We the mothers usually feel we are left out of health schemes by the government because all children were given injection against polio, malaria, TB...without considering those with issues like autism as special case that needs special attention...”* Another caregiver (CAR 1) who is an educator among the also explained: *“We stress most because those children have spectrum related health challenges...so we can't take care of them as we do for those without or with other regular diseases...”*

The above was supported by 3 respondents from NGODC, and 3 respondents among the CDR. This implies that all typically developing children and those with developmental disorders are being taken care of under the same healthcare plan, model and system, thus making the burden of these disorders on the affected, their caregivers and other stakeholders more strenuous than necessary.

Partnerships of governments with other stakeholders are inept

This is part of the main crux of this study and the views of the respondents suggested that public-private partnerships in sub-Saharan African countries of developmental disorders are inadequate. A cross section of respondents from all countries involved in the interviews, described public-private partnership on delivering good healthcare services to children with developmental disorders as effectual in Africa. Some blamed the government squarely for not having inclusive policies, templates and modus operandi to attract a network of stakeholders (caregivers, researchers, NGOs, private groups/ associations, investors, religion institutions etc. see Figure 1) as they have done for some deadly diseases like HIV/AIDs. *“In my country, we have National Agency for the Control of AIDS (NACA) in partnership with many stakeholders within and outside the country...But I also know of Centre for Disease Control without centres and collaborations on developmental disorders as such....”*(PHW3).

In addition, the majority of the caregivers, NGODC, PRHW and CDR in this study concurred that the collaboration between their government (at all levels) and them (as network of stakeholders) on developmental disorders is ineffectual as the government of their respective countries are seemingly doing nothing in terms of partnership on the said disabilities among children. According to one of the NGODC, *“Though many NGOs focus on other health challenges courtesy the seriousness of national governments' partnering with them, but what would the NGOs do when government does not give them a lifeline? So there a little we can do”*. Similarly, all CDR were of the opinion that in most cases, initiation of collaboration with stakeholders on diverse national issues starts from the government, but if such does not happen, it restricts stakeholders to even see the need of partnering with the government unless the case turns to a national disaster. *“In respect of developmental disorders, I don't know of any NGOs or individuals or stakeholders the governments have partnered despite that we are in democracy...”* (PHW 1). By the same token, PRHW 3 mentioned that *“The government*

especially here have not taken partnership with stakeholders serious...so they don't have reasonable plan on developmental disorders which should be treated like flood disaster or earthquake or communicable diseases". In sum, governments of many African countries have not realised the significance of collaborating with different stakeholders for having effective policy and aid for delivering good healthcare for African children with developmental disorders.

Meta-analysis and discussion

Extant literature has shown that most countries in Africa in the sub-Sahara region are low-income, and their system of governance affects their healthcare system. The healthcare delivery system review covers only few relevant studies involving few African countries. In a meta-review by (Whyte & Olivier, 2016) which covered low and middle income countries (LMICs) in Southern Africa, the participation of the private sector in health matters included the NGOs, for-profit providers, international donors, and traditional healers. The Public-Private Engagement (PPE) typology in the review focused intensely on donation and movement of funds within people in the health sector and their profound impact towards delivering good healthcare in their respective country. Figure 2 and Figure 3 indicate the nature of PPE in those countries.

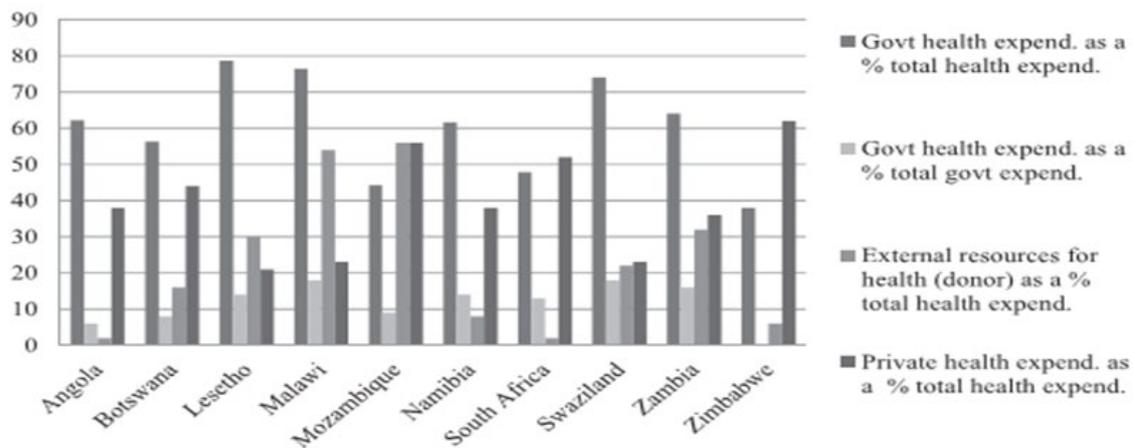


Figure 2. Health financing indicators for Southern Africa. (Source: Whyte & Olivier, 2016: 1517).

PPE model	Number identified	Countries
Social marketing	12	Angola, Malawi, Mozambique, Namibia, South Africa, Zambia, Zimbabwe
Contracting out	8	Botswana, Lesotho, Malawi, Mozambique, South Africa, Zimbabwe
Global PPP ^a	7	Botswana, Lesotho, South Africa, Swaziland, Zambia
PPM approach	5	Angola, Malawi, South African, Zimbabwe
Co-location PPP ^a	4	South Africa
SWAp	3	Malawi, Mozambique, Zambia
PFI ^a	3	South Africa
DP regulation	3	Mozambique, South Africa, Zambia
Voucher Programme	2	Zambia, Malawi
Financing	2	South Africa
PPIP ^a	1	South Africa
Alzira model PPP ^a	1	Lesotho
Franchise ^a	1	Zimbabwe

Table 1. Prevalence and geographic location of PPE models in the available literature (Source: Whyle & Olivier, 2016: 1520 [^aPPP sub-types]).

Country	No. of PPE initiatives identified	No. and % with external partners
South Africa	19	5 (26%)
Malawi	7	7 (100%)
Zambia	7	6 (86%)
Zimbabwe	5	4 (80%)
Mozambique	4	3 (75%)
Botswana	3	3 (100%)
Lesotho	3	2 (66%)
Angola	2	2 (100%)
Namibia	1	1 (100%)
Swaziland	1	1 (100%)

Table 2. Prevalence of international partners in Southern African PPE initiatives (Source: Whyle & Olivier, 2016: 1521).

The tables show the meta-analysis of the PPE typology with the indication that private stakeholders are crucial to many healthcare deliveries in many LMICs, but received funds in Southern Africa have been mainly diverted to diseases like HIV/ AIDS (and not developmental disorder like autism, ADHD). Also, the review indicated that a number of PPE models in South

Africa may be adopted across Southern Africa region based on country’s PPE initiatives, that is:

two contracting out arrangements (the part-time district surgeon approach and public–private work-place partnerships), four co-location PPPs, three PFIs, a PPM approach to child survival, two financing arrangements, one PPIP and the remunerated work outside the public sector (RWOPS) approach to management of DP” (Whyle & Olivier, 2016: 1521).

It is found that more than other countries in the Southern African region, South Africa has remarkable but general PPPs models on healthcare delivery which skeletally touch developmental disorders unlike HIV/AIDS that have received reasonable attention.

In another study which specifically focused on Lesotho but referenced countries from West Africa and Southern Africa, varied methods of public-private partnerships (PPPs) adopted by some African countries were reported (Hellowell, 2019). The crucial functions of the private stakeholders were also established in terms of their services and funding of the general healthcare delivery system in the continent as shown in Figure 3. In Lesotho, Kenya and Uganda (which are LMICs), the model of PPP covers a broad range of new healthcare facilities and clinical services, while in Burkina Faso, Ghana and South Africa, the public sector takes on the medical services while the private stakeholders involve in providing the facility, and thereby making the government to spend more without meeting up their broader healthcare delivery goals. In Benin, Lesotho and Nigeria, another model of PPP involves a combined provision of clinical services, finance and facility (Hellowell, 2019).

PPP category	Common term (countries in the sub-Saharan Africa region where the model is being considered or implemented) ¹¹	Definition
Services	Operating contract (Kenya, Uganda, Lesotho)	A private entity is brought in to operate and deliver publicly funded healthcare in a public facility
Facility/finance	Private Finance Initiative, PPP, P3 (Burkina Faso, Ghana, South Africa)	A private entity is contracted to design, build, finance and maintain a hospital. Most clinical services within the facility continue to be provided by the public sector
Combined	PPP (Benin, Lesotho, Nigeria)	A private entity is contracted to design, build, finance and maintain a hospital, and provide core healthcare services under public financing

Figure 3. A typology of hospital public–private partnerships (PPPs) (Source: Hellowell, 2019).

Some of these mechanisms according to (Hellowell, 2019) may not always work based on their varied contexts. Importantly, it is found that the PPP mechanisms adopted for delivery healthcare in these countries are generic, largely for profit, and exclude many networks of stakeholders that are relevant to tackling developmental disorders in Africa, suggesting the

saturation of the healthcare services by private stakeholders is motivated largely by profitmaking.

In addition, literature on PPPs from North Africa showed challenges in obtaining information from the private stakeholders but PPP is still viable in the North Africa region. In Egypt, Morocco, and Tunisia for instance, ambulatory and hospital services, involvement in supplying of medical technologies, medicines and building of infrastructures are crucial roles being played by the private health stakeholders as in other LMICs in the continent. Meanwhile, little progress has just been made concerning the partnership with the government, but needs to be fully explored. The PPE models for healthcare service deliveries are slightly varied but mostly combine services and infrastructure. According to WHO (2018), countries in the Northern Africa are urged to endorse this framework, which will enhance equity, financial accessibility and quality of services provided by the private health sector and harness its capacity for advancing Universal Health Coverage (UHC) As found in some literature analysed, the UHC agenda of 2030 serves as the main focus of most PPPs, and while designing such frameworks, the mechanisms to adequately reach and lessen the burden of children with developmental disorders are not conspicuously defined or addressed in those PPEs.

Conclusion and Recommendations

The health sector in most African countries is in crisis due to many challenges that are affecting their overall performance. Importantly, public-private partnerships (PPPs) on developmental disorders have not received adequate attention either as an independent unit of national health sector, health plan, or health delivery framework among sub-Sahara Africa which are mostly low-income and middle-income countries (LMICs). As revealed by the respondents and extant literature, the private stakeholders play inevitable roles in providing good healthcare to the teeming population in terms of expanding people's access to higher-quality healthcare delivery by providing technical/clinical knowhow/services, leveraging capital, and managerial or personnel capacity, but partnership has not been greatly considered to reduce the burden of developmental disorders among African children. A full report by the Independent Evaluation Group - a unit of World Bank Group in 2016 also added more viewpoints to this issue. This study further established that PPPs have been fraught with irregularities such as underpricing, corruption, lack of wide consultation with main stakeholders, lack of a good feasibility study before partnership, lack of good transaction skills especially by the public sector partner (Farlam, 2005).

It is recommended that government should incorporate a wide network of private stakeholders whose participatory level needs to be raised through adequate awareness, motivation, monitoring and evaluation. This study also recommends that governments at all levels in sub-Sahara Africa should maximise functional PPE framework they have adopted, or change the framework to what is more effectual and partnering a broader network of collaborators such as private individuals (like parents of children with developmental disorders), relevant



researchers, groups, associations, NGOs, and investors. African countries should be keen to reduce the burden associated with developmental disorders by creating a network of collaborators who will also participate in decision-making, rendering both main and auxiliary services, and giving financial or other succours which should be directed, monitored and evaluated by the government health agencies and other relevant private agencies. It is also recommended that both public sector partners and private sector partners on developmental disorders should ensure transparency and accountability, a good feasibility study before embarking on any partnership, and good transaction skills among others.



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