DEVELOPING PARTNERSHIPS TO EXAMINE COMMUNITY STRENGTHS, CHALLENGES, AND NEEDS IN NIGERIA: A PILOT PROJECT

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Abstract

There has been increased attention internationally on whole-person health and on building health resilience. A community project developed and coordinated an international effort in Nigeria using the web-based application MyStrengths+MyHealth (MSMH) to promote understanding of strengths (resilience), challenges, and needs as part of a health and well-being initiative, providing the opportunity to develop sustainable community partnerships informed by data. Community partners partnered to pilot the use of MSMH to gather self-reported data on strengths, challenges, and needs in the community setting. Participants were sent a WhatsApp link to MSMH; data was analyzed using descriptive statistics. Further research is needed to validate results in a larger population. This community project presents a new phase of individual and community-level data to understand hidden needs of the most vulnerable members of communities. This research has the potential to shift the paradigm to optimize population health management using a strengths (resilience) perspective.

Key Words: Community health; Whole-person health; Resilience; Community-driven data

International organizations have called for the development of programs and partnerships to strengthen global health resilience; there is a need for international, coordinated efforts to develop and strengthen global health resilience and contribute to attaining Sustainable Development Goals (United Nations, 2022; USAID, 2021).

Resilience is the ability of individuals, families, communities, and countries to maintain and improve their well-being in the face of short and long-term stressors (Amil et al., 2017; USAID, 2021). Whole-person health is described as the combination of health across an individual's environmental, psychosocial, physiological, and health-related behaviors domains (Sminkey, 2015; Martin, 2005). Building sustainable resilience and effective community health strategies depends on partnerships that foster relationships, trust, and respect (Eisler & Potter, 2014). This paper describes the development of a community project to examine whole-person health and resilience using the web-based application MyStrengths+MyHealth (MSMH) in Nigeria.

BACKGROUND

The COVID-19 pandemic has exposed the need for accelerated and coordinated global health efforts to address the pandemic and build health resilience (Anderson et al., 2020; Gates, 2020; Ng et al., 2020). Resilience is an increasingly recognized aspect of individual and community health (Ellis et al., 2022). Resilience is the ability to maintain and improve well-being in the face of short and long-term stressors (Amil et al., 2017; USAID, 2021). Global organizations such as the World Health Organization (WHO) and the United States Agency for International Development (USAID) recognize resilience as a critical factor for health and well-being (USAID, 2021; WHO, 2020).

Emerging evidence has shown that growth in international partnerships in Africa has expanded the capacity for research collaboration and dissemination (Bohonos et al., 2022; Tonen-Wolyec et al., 2022). A key contribution to successful collaboration has been shown to be "authentic partnership"(Lutomia et al., 2021). However, special consideration should be given to factors such as location, power structures, and resource limitations throughout all phases of a project or research study (Schmid & Pathak, 2017).

In Nigeria, community health is defined as the health of the whole population and the prevention of diseases from which the population suffer (Alakija, 2000). This

perspective identifies the root causes of diseases and health problems not only from the individual perspective but also from family, the community, and the environment. Resources from the community and government are utilized principally in solving health problems; however, they are often not often used in combination. Using resources from the community and government together can provide the highest level of health for all people in the community, including physical, mental, moral, social, and spiritual health (Alakija, 2000).

Community health consists of principles and practices aimed at achieving prevention of premature death, disabilities, and diseases through organized community efforts, with a view to assuring the promotion of optimal health of members of a community in the context of their environment; optimal health is said to mean a balance of physical, emotional, social, spiritual, and intellectual health (Abanobi, 1999). Community health can also be seen as the application of simple but scientifically sound and culturally acceptable methods and skills in the prevention, promotion, rehabilitation, and/or treatment of health conditions in the population or community in reference.

In Nigeria, community health practice refers to provision of health-care services aimed at early diagnosis of disease, and recognition of environmental and occupational hazards to good health and the prevention of disease in the community (Ibama, 2015).The period from 1975-1980 (Third Development Plan) bought in a turning point in the health-care system through the birth of the Basic Health Services (BHSS), a system of providing health care at the community level by trained personnel, most of whom are Community Health Practitioners (National Population Commission [Nigeria] and ICF, 2019). The BHSS, based on the establishment of health centers at the community level to work with the community members, created a needed change from the previous hospital-based, curative-care system of health care. These health centers do not as yet have a data infrastructure for community decision making. Social and governmental initiatives such as the Abuja Declaration, a pledge to increase government health funding, have impacted community health and health-care services (Nigeria, 2010; Olalere & Gatome-Munyua, 2020).

Successful partnerships are essential to effective community health. Building partnerships to generate collective impact involves attention to community narratives, including family and childhood relations, gender relations, economic relations, and the language and narrative of partnership, and the intersectionality of these factors (Eisler & Potter, 2014; Eisler, 2017). The use of community data can provide actionable data that is inclusive and contains multiple perspectives. This project sought to use a self-reported mobile health application, MyStrengths+MyHealth (MSMH), to gain insights from data directly generated by community members.

MSMH, developed in 2017, is a whole-person web-based mobile health application designed for individuals, families, and communities to self-identify strengths, challenges, and needs (Austin, R. et al., 2021). MSMH assessment can be delivered via desktop, tablet, or smartphone. MSMH leverages the rigor of the Omaha System, a valid, reliable instrument with a multi-disciplinary standardized health terminology that addresses all of health across four domains with 42 discrete concepts (Austin, Martin, et al., 2022; Monsen, Austin, Goparaju, et al., 2021).

In 2021, the MSMH International Research Collaboration was formed to exchange ideas, develop research partnerships, and share resources in an effort to build sustainable methods to examine individual and community resilience using standardized informatics methods via MSMH to generate actionable data in ways that align with community perspectives and partnerism (Eisler, 2017; Eisler & Potter, 2014). The collaboration currently includes individuals from academic institutions and government health organizations representing 10 countries: Mexico, The Netherlands, New Zealand, Turkey, Nigeria, Thailand, Taiwan, Israel, Korea, and the United States. Since 2021, the collaboration has met quarterly online to discuss project planning and implementation at various stages. Collaboration successes include initiating several MSMH research projects; challenges are related to time differences across several time zones.

The purpose of this community project was to develop and coordinate an international partnership in Nigeria to promote understanding of strengths (resilience), challenges, and needs as part of a health and well-being initiative, using the web-based application MSMH. Project aims included developing ongoing partnerships with community leaders to examine whole-person health, and piloting MSMH within a Nigerian community to examine and describe strengths, challenges, and needs of community members from their own perspectives.

METHODS

This community project took place in the Ikorodu community, a large rural region in Lagos State, southwestern Nigeria, between November 2021 and January 2022. Community partners in Nigeria came together to pilot the use of MSMH, gathering Health Insurance Portability and Accountability Act (HIPAA)-compliant data from volunteer participants who received the MSMH application survey link via WhatsApp. The University of Minnesota Institutional Review Board deemed the pilot project exempt from review. All MSMH data were stored in the university's secure data shelter. Community partners were instrumental in raising awareness, sensitizing the general public, delivering talks to community members, and mobilizing volunteers for outreaches (Ibama, 2015). De-identified data was downloaded from the MSMH secure data shelter for analysis; Statistical Package for the Social Sciences (SPSS) was used to analyze descriptive and inferential statistics.

Instrument
The Simplified Omaha System Terms (SOST) is a survey containing 42 concepts, validated at the fifth grade reading level (Austin, Martin, et al., 2022). In SOST, four Omaha System domains (Environmental, Psychosocial, Physiological, and Health-related Behaviors) were renamed My Living, My Mind and Network, My Body, and My Self-care (Figure 1).

Figure 1.

Forty-two Simplified Omaha System Terms across Four Domains

My Living	My Mind & Networks	My Body		My Self-care
Income	Connecting	Hearing	Breathing	Nutrition
Cleaning	Socializing	Vision	Circulation	Sleeping
Home	Role change	Speech and language	Digestion	Exercising
Safe at home and work	Relationships	Oral health	Bowel function	Personal care
	Spirituality or faith	Thinking	Kidneys or bladder	Substance use
	Grief or loss	Pain	Reproductive health	Family planning
	Emotions	Consciousness	Pregnancy	Health care
	Sexuality	Skin	Postpartum	Medications
	Caretaking	Moving	Infections	
	Neglect			
	Abuse			
	Growth and development			

Source: Austin, Monsen, et al., 2021. Used with permission.

In SOST, signs/symptoms associated with the 42 concepts were renamed Challenges, and interventions were renamed Needs. MSMH captures health status using a continuum of severity for each concept (1 star = very bad; 5 stars = very good). On this scale, a concept is considered a strength if it is rated 4 (good) or 5 (very good). Thus, this community-friendly, consumer-facing instrument generates powerful data for clinical and community use in education and in research.

RESULTS

Participants (N=80) were 68.8% female and 31.2% male; 58.8% were married. Age categories were 18-24 (27.5%), 25-44 (43.8%), and 45-64 (23.8%). Overall, participants

had Strengths in an average of 24 concepts [M=24.6 (SD=8.3)]. The most common strengths were for *Hearing*, *Bowel function*, and *Reproductive health* concepts. They had Challenges in average of 10 concepts (23.3 unique challenges; SD=15.0). The most common challenges were for *Income*, *Connecting*, and *Exercising* concepts. They had Needs in an average of 15 concepts (25.2 unique needs; SD=30.1). Their most common Needs were for *Income*, *Connecting*, and *Socializing* concepts. A parallel coordinates line graph shows relationships among Strengths, Challenges, and Needs across all concepts (Figure 2).

Figure 2.

Overall percent Strengths, Challenges, and Needs
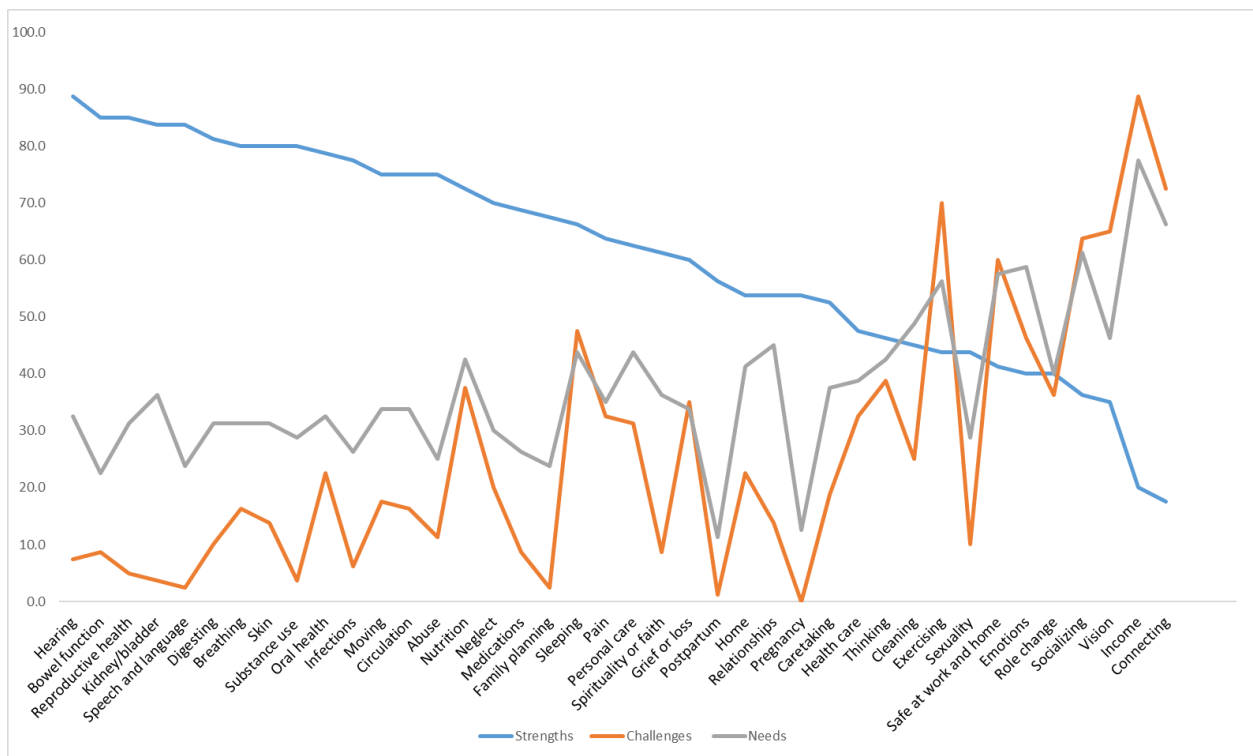
The most frequent Challenges (reported by more than 50% of participants) were for Income [not enough income (83.8%), only able to buy what I need (81.3%), hard to buy the things I need (73.8%)]; Connecting [hard to access services (66.3%) and

transportation barrier (65.0%)]: and social contact [limited social time (61.3%)] (Figure 3).

Figure 3.

Most Frequent Challenges
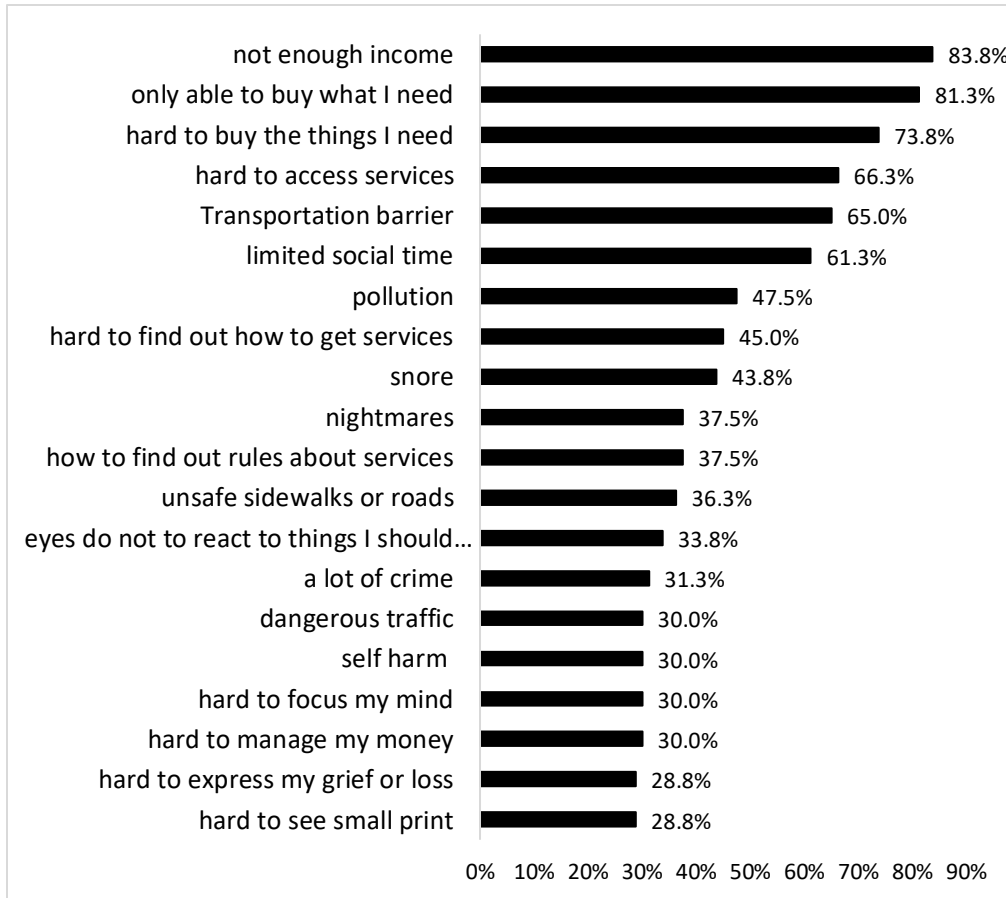
The most frequent Need was for Info/Guidance (51.8%) followed by Case management (20.0%), Hands-on care (16.0%), and Check-ins (12.1%). The most frequent Needs were for the Connecting concept (61.3%); Income (57.7%); Socializing (46.4%); and Safe at Home and Work (45.8%) (Figure 4). We did not compare differences in gender responses for this analysis.

Figure 4.

Most Frequent Needs
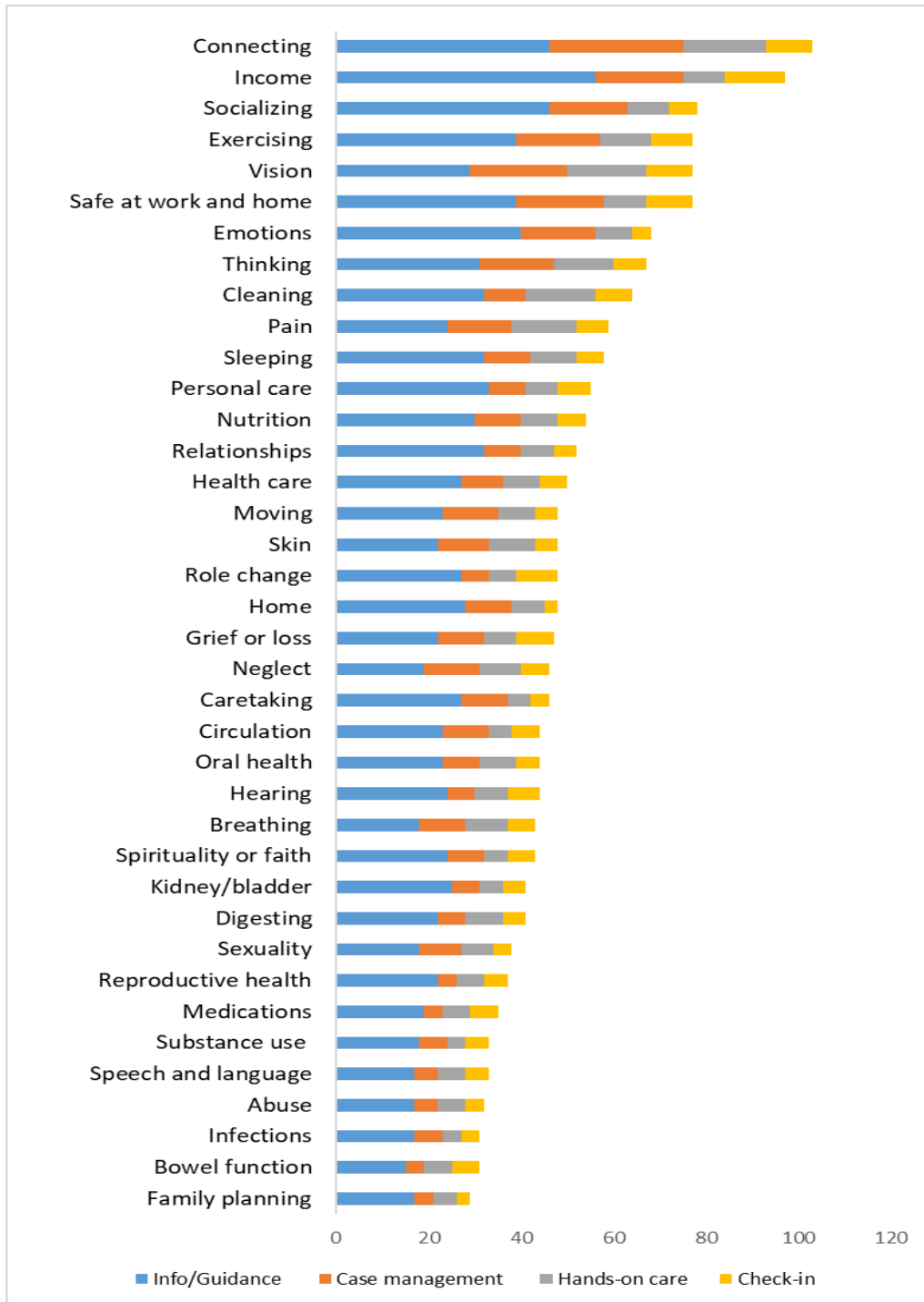
DISCUSSION

This community project established a foundation to begin developing partnerships that will enable community members to examine resilience and well-being in the context of whole-person health. It was feasible to collect MSMH self-reported Strengths, Challenges, and Needs data from 80 volunteer community participants. Interestingly, while strengths were much more frequent than challenges and needs, findings from this survey showed a pattern in which needs exceeded challenges; this differs from findings of previous studies (Austin, Mathiason, et al., 2021, 2022; Monsen, Austin, Goparaju, et al., 2021). Future work includes expanding MSMH data collection to additional areas within Nigeria and expanding community partnerships.

A key factor contributing to the success of this project was the established international research collaborative and a shared goal to examine community health resilience (Austin, Lozada, et al., 2021). The MSMH International Research Collaboration provided support to develop the pilot and offered guidance during data analysis. The shared goal to examine community health resilience aligns with international organizations efforts to build health resilience through partnerships and collaboration (Amil et al., 2017; Ellis et al., 2022; USAID, 2021).

The findings from the community project showed that many participants have strengths as well as health challenges and needs. This aligns with previous research using the MSMH application. However, the rank ordering of concepts has been interesting to consider. The Income and Social contact challenges have been increasing across datasets during the COVID-19 pandemic. This project was unique in that this population had a higher number of overall average needs compared to average challenges; this is different than previously reported research (Austin, Mathiason, et al., 2021; Monsen, Austin, Jones, et al., 2021). Community members and leaders are in the process of interpreting these findings and gathering additional responses.

This project has implications for future partnership development. This partnership has the potential to generate an international database of individual and community-level reported strengths, health challenges, and needs. Future efforts of this community partnership include using MSMH data to inform and advise policy makers who would not otherwise be aware of these community strengths, challenges, and needs. The partners are committed to involving community members in developing the community whole-person health narrative and ensuring that the community's voices are heard.

CONCLUSION

This community project initiated a new phase of individual and community-level data within a Nigerian community. It enabled a data-driven whole-person health perspective revealing many strengths, important challenges, and high levels of needs in relationship to strengths and challenges. Next steps are to share the findings with individuals to identify needed resources, inform community programming, and advise policy makers who would not otherwise be aware of these needs. Through this partnership, we plan to generate new knowledge that will lead to sustainable resilience efforts using data to reflect and amplify community voices and experience.

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