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Global Perspectives for Strengthening Health Education: A Mixed-Methods Study

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Keywords

Acknowledgements/Disclaimers/Disclosures

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Global Perspectives for Strengthening Health Education: A Mixed-methods Study

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Abstract

This study aimed to identify the knowledge, experiences, and attitudes about current practices of health education (HE) among government-affiliated high-profile health administrators in developed and developing nations. Respondents (N = 21) were purposively selected based on their affiliation as a health administrator at the national level, with roles in high-profile decision-making for devising policies/programs and allocating funding or advocating strategies to advance HE. Information was gathered using a web-based cross-sectional survey in 5 languages, consisting of 14 closed-ended and 8 open-ended questions. A majority were males (70%) and spoke English (57%), 45% had postgraduate degrees, and 57% were from high-income countries. Participants recognized the importance of HE in their countries and estimated percentages of adults who received health information through various sources. Participants also rated population subgroups that benefit from HE. They highly rated these health issues for HE: control/prevention of communicable diseases, nutrition, physical activity, mental health, and tobacco and other drugs. Only 40% reported having enough resources and funding available for HE. For the qualitative questions, irrespective of being from developed or developing countries, most respondents identified the need for invigorating HE that could be categorized into seven key areas: HE program evaluation, actions to strengthen HE, organizations responsible for identifying HE priorities, job titles of health educators, how ministry collects information on HE needs, high priority health issues and ensuring equity, and ways nongovernmental organizations can strengthen HE. Findings were helpful to identify: high priority HE issues across countries; status of HE programs among government entities; status of funding for HE programs; and how countries can provide more effective program outcomes. Further studies with higher response rate are needed to address these specific issues.

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Introductions

Health education (HE) programs can be defined as "any combination of learning experiences designed to help individuals and communities improve their health, by increasing knowledge or influencing attitudes" (World Health Organization, 2013). Traditionally, HE's overall objective is empowerment of communities to pursue improved quality of life by addressing epidemiologically documented critical health problems. HE programs impact health trends within local populations via theory-based interventions (Nutbeam, 2000; Rimer et al., 2001). Over decades, health education has evolved in media use and communication strategies, especially due to digital communication and a more crowded marketplace for communication, enabling

people to engage and navigate competing sources of information from diverse sources (Nutbeam, 2018). Moreover, recent studies have elucidated the role of health educators in clinical, research, education, and policy interfaces and the importance of building a common reference point, as well as enabling them to identify the realities of its practice (Pueyo-Garrigues et al., 2019).

In developing nations, HE typically focuses on prevention of communicable diseases, including immunizations, and maternal and child health. HE in developed nations increasingly addresses non-communicable disease prevention and behavioral health (Nutbeam, 2000). However, it's also important for developed nations to have the ability to quickly respond to communicable diseases as they arise, such as COVID-19 (Freed et al., 2020). Well-prepared HE workforces are essential and, according to the World Health Organization (WHO, 2016a), serve communities through delivery of health promotion programming, which enables people to increase control over their own health (WHO, 2016b). However, governments face substantial challenges concerning development of well-qualified HE workforces (Frenk et al., 2010).

A global shortage of health professionals trained in population health continue to exist with 57 low-income countries facing a severe crisis of lacking human resources to meet minimum needs (Crisp & Chen, 2014), whereas, in 2016, the WHO predicted a global shortage of 18 million by 2030, which is more than twice the shortfall estimated in 2013 (WHO, 2016c). Furthermore, a shortage of HE professionals and lack of clarity regarding their roles and responsibilities in HE were simultaneously noted with reports of overstaffing among skilled healthcare workers in industrialized areas of developed and developing countries (Dussault & Franceschini, 2006; WHO, 2016c). Additionally, policymakers continue

to be challenged with ensuring continuity of care and staffing of underserved and rural areas (Dussault & Franceschini, 2006). Incentives, including higher wages, better technological tools, and attractive contracts are used to attract health care workers with training in health education; nevertheless, shortages of highly qualified professionals with training in health education remain problematic (Dussault & Franceschini, 2006).

Reduced HE budgets and inabilities to recruit adequate numbers of trained health educators present obstacles for policymakers (Bruening et al., 2018). For example, the U.S. Bureau of Labor Statistics indicated that 55,830 people were employed as health education specialists in 2021 (U.S. Bureau of Labor Statistics, 2021), compared with 63,320 in 2006 (Bruening et al., 2018). To improve the quality of HE initiatives, effective recruitment, placement of health educators, and allocation of adequate resources in both urban and rural sectors must be assured by policymakers. No previous research has solicited input from high-profile health administrators in order to address existing needs.

The initial step in resolving this challenge is documentation of responsible policymakers' perspectives regarding HE. Therefore, this study's purpose was to identify the knowledge, experiences, and attitudes of government-affiliated high-profile administrators from both developed and developing nations regarding HE priorities, evaluation, funding, and outcomes.

Methods

Study Design

Considering the hard-to-reach study population, a survey was fielded via purposive sampling and cross-sectional design. Information was gathered via a web-

based and paper survey comprising 14 closed-ended and 8 open-ended items (see Supplementary Material).

Survey Development

Authors extensively reviewed literature during survey development to identify items that could be adopted from a previously validated instrument (Conceição et al., 2009). This study's survey was offered in five languages. First, the survey was developed in English by three authors with expertise in instrument development, HE, and global health. Thereafter, native speakers of French, Spanish, Russian, and Arabic each translated the survey into their respective languages. Back-translation was executed by other individuals with similar language proficiency to ensure retention of original meanings. If significant discrepancies were found, the process was repeated by another pair of individuals, with translation finalized via consensus. A survey website was developed, including study information and links to the Qualtrics web-survey plus questionnaires in PDF format for printing, if desired, in all languages.

Both closed-ended and open-ended items solicited participants' perspectives and conceptualizations of HE, suggestions for improving HE quality and outcomes, and suggestions for collaborations to strengthen HE initiatives. For example, in the item: "*To what extent are each of the following factors considered a weakness or a strength in health education services and campaigns provided by your ministry/department? Using any number from 1 to 10, where 1 is 'Great Weakness' and 10 is 'Great Strength', circle one option for each service or campaign,*" participants were expected to rate each of the following items: *policies, staffing levels, funding, coordination, qualifications of health educators, knowledge among health educators, skills among health educators, experience among health educators,* and *priority given to health education.* Within the official definition (WHO, 2013), HE was portrayed as the means by which the general public, groups of people, and communities acquire knowledge and adopt behaviors conducive to health promotion, restoration, and/or maintenance. Precautions were taken during survey development to uniquely identify objectives that focused on HE for the general public (Foldspang, 2008), as distinguished from another form of HE—medical and public HE of students and healthcare trainees (Adamson et al., 2006).

Due to differing foci of HE in developing and developed nations, use of one survey for all countries proved challenging. Moreover, health literacy levels varied widely across high-profile health administrators, given their education levels, specializations, and professional work experiences. To determine the adequate balance of health issues and questions in the survey and deliver them at an appropriate level of health literacy, authors pilot-tested preliminary survey questions with six health administrators and academics in four countries with contrasting per capita income levels (i.e., United States, Russia, Brazil, and Sri Lanka).

Sampling Frame

A health educator is "a professionally prepared individual who serves in a variety of roles and is specifically trained to use appropriate educational strategies and methods to facilitate the development of policies, procedures, interventions, and systems conducive to the health of individuals, groups, and communities" (p. 6) (Gold & Miner, 2002). Accordingly, potential survey participants may or may not be health educators themselves currently and/or in the past. Regardless, participants were selected based on whether they were potentially involved in higher-level decision-

making that directly or indirectly impacts public HE. To avoid sampling bias, ranks of potential survey participants were determined prior to contacting respective ministries. Possible ranks included: top administrator in all sections of health ministries/departments, top administrator in disease prevention and public health services, top administrator in hospital sectors and medical care services, and chief of the community HE services.

Considering the rapid turnover of high-profile health administrators, and that most ministerial appointments change post-elections, this study exclusively sampled those who held aforementioned positions at the time of the survey, irrespective of whether full-time or temporary. Consistent with the United Nations' database, 160 sovereign countries with autonomous governments were included in the preliminary sampling frame. To cover at least one of the national languages of 118 countries in the sampling frame, five languages were included. Nevertheless, high-profile administrators in most countries are presumably English-proficient.

Study Participants

Participants were purposively selected based on affiliations with national-level health ministries or equivalents, with roles in devising HE related policies, implementing programs, providing technical assistance, and/or advocating strategy advancement. Names and available contact details were obtained from lists of country delegates to the 2017 WHO-organized World Health Assembly (Morriss & Gore-Booth, 2017). Then, Health Ministry/Department websites were explored for participant email addresses, telephone/fax numbers, and official mailing addresses. Finally, a research assistant contacted reception desks or the International Liaison Officers of each health ministry/department to obtain the contact details of any remaining participants. In total, email addresses were collected for 80 potential participants, along with assistants' or secretaries' telephone numbers and email addresses for follow up.

Survey Administration

During February to April of 2018, surveys were distributed via email with invitations to participate and study information sheets. Of 80 potential participants, less than half responded in this first round. Following up, during June to August of 2018, a reminder email was sent to the non-respondents. At survey closing, 35 responses were received, but only 21 were more than 80% completed. This yielded a 26% response rate; 21 out of 80 valid responses (Table 1). Only seven participants completed both the open-ended, qualitative survey items and closed-ended items.

Data Analysis

Quantitative data were analyzed using SAS version 9.4 (SAS Institute, Cary, NC). Means and standard deviations (SD) were calculated for variables that required numeric response entries (e.g., age) or numeric value selection (e.g., importance of HE). Country of each participant was identified from either self-reported information or latitude/longitude data on Qualtrics. However, specific countries are not reported here because of the potential to identify study respondents; instead countries have been categorized based on income level (World Bank, 2022).

The qualitative portion consisted of a priori coding for all eight open-ended survey questions, with the coding scheme based on responses to each (Dutta et al., 2018). Analysis consisted of sorting and code categorization, based on the conceptual

commonality of responses. Categories were then developed via construction of a coding manual in order to record descriptions of each code group. To ensure data reliability, one investigator prepared initial codes and mnemonics that were then debriefed and confirmed by a second investigator. All qualitative data analyses were completed through NVivo version-11 (QSR International, Burlington, MA) software. Personal information was kept confidential throughout the study. Qualitative coding and analysis commenced following completion of open coding for all participant responses.

Results

Of the 21 usable surveys, most participants were males (67%), and postgraduate degree recipients (45%), and spoke English (57%). The sample has been skewed towards developed countries with 12 participants (57.1%) from high-income countries. The majority (57.1%) affirmed involvement with HE programming in their country (Table 1).

As indicated (Figure 1), 45% of respondents reported that over two thirds of adults in their countries receive information from television, radio, and the Internet; 38% reported that over two thirds of adults receive information from newspapers, magazines, books, doctors, nurses, and public health workers. Similarly (Figure 2), 62% of respondents reported that over two thirds of adults are knowledgeable about nutrition, physical activity, and their family's health issues; whereas 40% reported that over two thirds of adults are knowledgeable about infection control and prevention. Participants also rated the importance of and benefits from HE; a majority provided extreme answers regarding the importance of HE (Table 2).

On a 10-point scale (1 = great weakness, 10 = great strength), participants charac-terized HE services and campaigns in their countries relative to policies, staffing levels, funding, coordination, health educator qualifications, health educators' knowledge, health educators' skills, health educators' experience, and priority of HE. Whereas averages ranged between 5.60 (SD = 2.82) for funding and 6.95 (SD = 3.25) for priority of HE, consistent extreme ratings were less common. Similarly, on a 10-point scale (1 = very low priority, 10 = very high priority), respondents rated priority for addressing health issues nationally, including: common infection control and prevention; nutrition; physical activity; mental health problems and prevention; tobacco, alcohol, and addictive drug use; and maternal/child health. The lowest average of 5.25 (SD = 2.18) was for mental health; the highest of 6.38 (SD = 2.68) and 6.38 (SD = 3.89) were for control/prevention of common infections and maternal/child health, respectively. Four respondents rated common infection control and prevention as very low priority, whereas six indicated very high priority; extreme ratings were uncommon for other health issues.

Regarding funding and budgeting, 40% stated that HE funds in their countries were identifiable in ministry/department budgets; 20% stated that funds are unidentifiable. The remaining 40% indicated that HE funds are available, but mixed with other funding and difficult or impossible to explicitly link with HE. Separately, 46.67% reported that the criteria for HE funding were included in their country's national health plan, while another 46.67% reported that the criteria for HE funding were not included; 6.67% reported absence of a national health plan.

Seven participants responded to the open-ended survey questions; some listed multiple responses to certain questions. For the qualitative questions, most of the respondents, both from developed and developing nations, were unanimously

Table 1

Characteristics of High-profile Health Administrators across Countries who Completed the Survey (N = 21)

Demographic Variable	Level	Frequency	Percentage
Age (Years)	Under 35	5	23.8
	35-44	4	19.0
	45-54	1	4.8
	55 and above	6	28.6
	No response	5	23.8
Sex	Female	6	28.6
	Male	14	66.7
	No response	1	4.8
Language	Arabic	2	9.5
	English	12	57.1
	French	2	9.5
	Russian	2	9.5
	Spanish	3	14.3
Education	Less than primary school	5	23.8
	Primary education	2	9.5
	Secondary level	1	4.8
	College or university	3	14.3
	Postgraduate education	9	42.9
	No response	1	4.8
Ever Involved in Conducting a Health Education Program	Yes	12	57.1
	No	5	23.8
	Cannot remember	3	14.3
	No response	1	4.8
Country Income Category	High-income	12	57.1
	Middle-income	5	23.8
	Low-income	4	19.0

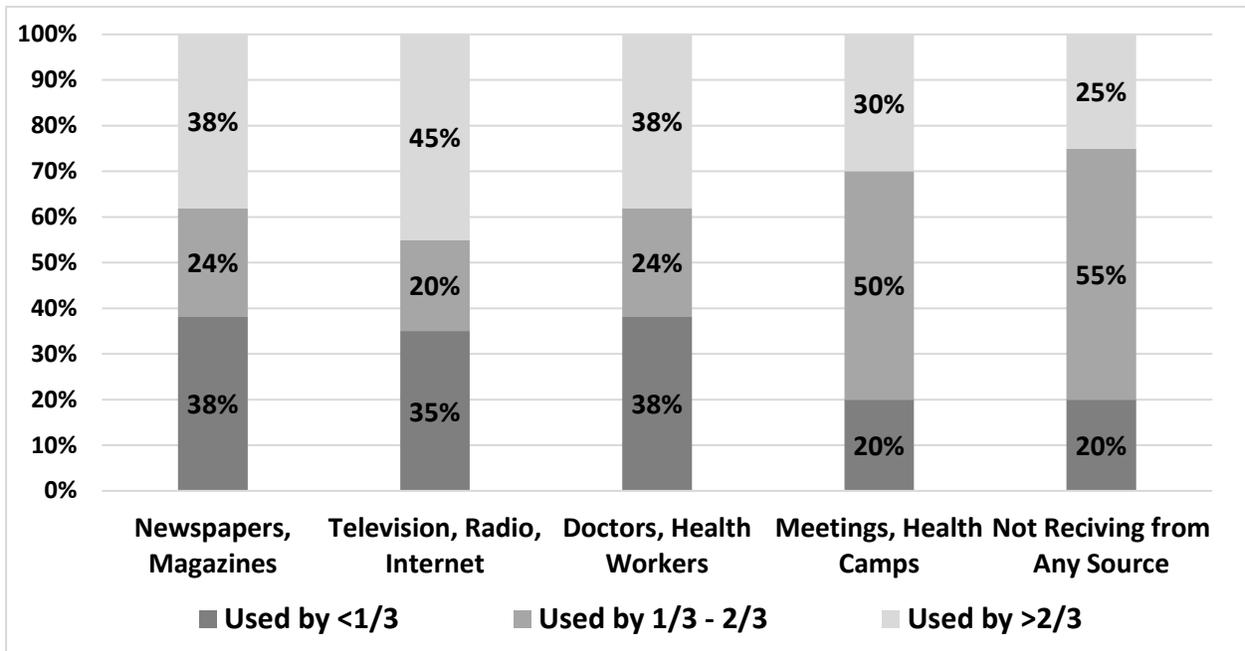*Figure 1.* Percentage of respondents who reported adults' use of information sources in respective countries (N = 21).
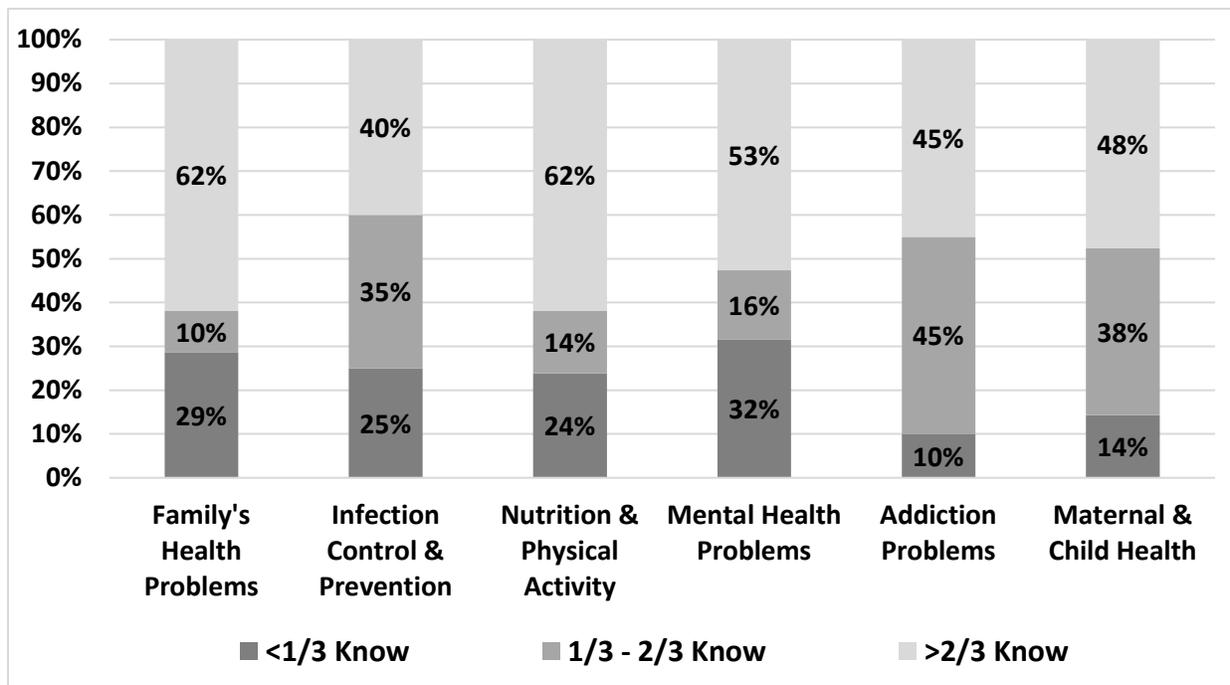

Figure 2. Percentage of respondents who reported adults' knowledge of common health issues in retrospective countries (N = 21).

Table 2

Participants' Ratings Regarding the Importance of and Benefits from Health Education (N = 21)

Variable	Scale	Mean	Standard Deviation	Notes
Degree of importance of HE, compared to other provided health services	1 – 10	5.71	3.62	A majority provided extreme answers: 7 that HE is not at all important and 4 that HE is very important
Extent to which urban people, rural people, school children, young adults, adults ages 25-64, older adults, women, and pregnant women, benefit from HE programs	1 – 10	Range between 5.55 and 6.81	Range between 3.25 and 2.87	2 consistently rated HE as an intervention with no benefit to any group. Conversely, 2 consistently rated HE as greatly benefiting all groups. While both types of extreme ratings were higher for urban people (six participants rated no benefit and five rated great benefit), a relatively higher number rated HE as providing great benefit to children, young adults, women, and pregnant women.

consensual that HE needs to be prioritized. Their responses could be categorized under seven key thematic areas: HE program evaluation, actions to strengthen HE, organizations responsible for identifying HE priorities, job titles of health educators, how ministry collects information on HE needs, high priority health issues and ensuring equity, and ways nongovernmental organizations can strengthen HE.

Regarding ministry/department-evaluated HE programs, the majority indicated that periodic data collection (29%), with or without standardized criteria at either national or regional levels, was how HE programs were evaluated to provide assurance of effectiveness and quality. Some stated that evaluations conducted by the assigned department/health ministry had no structure, or that evaluation structure is "lousy," or that there was no evaluation at all. As for actions public health institutions/ departments in their respective nations could take to strengthen HE, the majority stated that provision of *more health experts and trained professionals* (43%) would strengthen HE. Respondents also stated that, in order to improve the quality of HE, institutions/departments need to better understand social concerns, enforce a mandatory policy, prioritize funding, increase the presence of programs, and increase cross-sector cooperation.

Participants listed organizations believed to be responsible for identifying HE priorities in their countries, with the majority identifying National Institutes of Health (60%) or equivalent. Other respondents identified behavioral health institutes and regional health authorities. Participants also

listed job titles attributed to HE specialists in the entity responsible for implementing HE initiatives in their countries: health visitor, public health nurse, health teacher, doctor, and public health professional.

The ways in which departments/ministries responsible for developing HE initiatives collected information about the needs of the public included: research, data collection, evaluation measures, and health campaign monitoring. Highest priority health issues identified by participants were non-communicable diseases. Others listed nutrition, physical activity, smoking cessation, substance use, alcoholism, and minority health issues as high priorities. Finally, participants suggested ways that the WHO and NGOs can contribute to HE improvement. These included: provide resources/tools, technical assistance, advocacy, policy reform, and training for HE project initiatives that improve the quality of HE on a global scale.

Discussion

Albeit with a low response rate, this first-of-its-kind global survey explored governmental support of public HE at national levels and, thereby, provided insights into critical policy issues for consideration by HE administrators. Study findings cataloged current levels of funding for HE programs along with high priority HE issues, and described the status and structure of HE program evaluation within responsible government entities. Furthermore, actions that public health institutions and departments in respective nations could initiate to strengthen HE were identified. Previously, no international research addressed the objectives of the current study despite the reality that bureaucratic structures and procedures in most countries often do not recognize the need to assist communities with meeting local health promotion goals or

do not offer nationwide interventions as appropriate alternatives for addressing local needs (Simonds, 1984). Often this results from healthcare spending prioritization patterns whereby HE is considered neither a pressing community health need nor a politically appealing intervention as compared to improved healthcare infrastructure (Dutta et al., 2020).

The majority of respondents indicated that provision of more health experts and trained professionals would strengthen the quality of HE in their countries. These findings are consistent with existing literature indicating that shortages of trained HE professionals in the workforce often creates challenges to implementing HE initiatives (Frenk et al., 2010). The shortage of skilled healthcare professionals also results in program development shortfalls for underserved and rural communities in industrialized areas of both developed and developing countries (Dussault & Franceschini, 2006). Additionally, many health professionals are undercompensated as a result of budget cuts and challenges, often due to worker shortages (Frenk et al., 2010). Although participants in this study could not identify operational connections between programs that were designed to improve health services and interventions that exclusively involve HE, it is possible that, in most countries, the former category of programs included HE components requiring extensive utilization of human resources (Simonds, 1983). On the other hand, in developing countries, there can be a discrepancy between the number of health administrators deployed and those present at their posts, especially in rural areas, therefore, decentralization of work-force management and financing, collaboration between government and nongovernmental organizations, and privatization of health education to meet labor market dynamics and health needs

should be considered (van de Pas et al., 2019).

According to empirical literature, HE programs, especially those in developing countries, often do not realize their intended objectives. Failures may not be due to lack of expertise and technological problems, so much as to administrative issues (Bruening et al., 2018), along with ideological and political conflicts (Sutton, 1982; Tsalikis, 1980). Recent studies have suggested that establishment of mutually beneficial partnerships between institutions in developed and developing countries can strengthen health education and address emerging public health issues, such as COVD-19 (Eichbaum et al., 2021). Consistently, almost half of survey respondents reported that criteria for HE funding were absent from national health plans; some reported no national health plan at all. Participants also highlighted the lack of consistent evaluation of HE initiatives. Additionally, most respondents indicated that funding for HE program development is not explicitly included in national health budgets. Lack of budgetary inclusion could further limit the ability to secure resources for HE programming.

Prior reports suggest that keys to HE program success in local communities are participation by the local population and assistance from local citizens with minimal technical training (Simonds, 1984). Therefore, use of funds from not-for-profit, nongovernmental organizations or private agencies may facilitate greater freedom to directly address local concerns and bypass national and regional bureaucratic systems (Simonds, 1984). However, if such local projects do not impact national programs and policies, either directly or indirectly, larger populations may not be affected in the long run. Under these circumstances, local programming may prove unsustainable. This possibility accentuates the need for

implementing national policies that encourage and strengthen effective local approaches to funding acquisition, human resource utilization, and accountability, rather than local implementation of nationwide programs (Dutta et al., 2021; Simonds, 1984). Additionally, the WHO has recently recommended cost-effective communication and information technologies to strengthen health education and people-centered health services (WHO, 2018).

Many survey respondents indicated that funds available for HE are mixed with other funding. Similar to responses highlighting lack of human resources exclusively for HE, these results indicate that funds potentially available for HE program development and evaluation are not exclusively designated for HE. Thus, ability to secure funds solely for HE program development alone is compromised. Therefore, policymakers and stakeholders are encouraged to collaboratively advocate for inclusion of discrete HE program funding in federal health plans.

HE is typically directed towards the prevention of non-communicable diseases in developed countries and prevention of communicable diseases, along with maternal and child health issues, in developing countries (Nutbeam, 2000). Consistent with empirical reports, participants in this study indicated that the prevention and control of non-communicable diseases and infections were high priorities for HE programming in their respective countries, with most participants from low- and middle-income countries emphasizing the need for adequate education that targets prevention of common infections and maternal and child health (Gilmore & McAuliffe, 2013). Appropriately, respondents identified the need for HE that strengthens social equity, meets fundamental human needs, and improves access to resources. Almost half of

respondents stated that chronic conditions such as cardiovascular diseases were also high priority health issues in their countries, thus most health administrators do not identify injury prevention, mental health, and related issues such as bullying and intimate partner violence as high priorities amenable to HE interventions.

Limitations

A major study limitation was the low response rate and resultant small sample size, possibly indicating sampling bias. Furthermore, this survey used purposive sampling, based on availability of contact details of individuals affiliated with the health ministry/department at the national level. Given the difficulties associated with acquiring prospective participants' direct contact information and their busy schedules, communication vectors were limited. Although surveys were distributed to 80 potential participants, less than half responded in the first administration round and only 21 recipients completed more than 80% of the survey. Despite the low overall response rate, even fewer completed the open-ended questions. Furthermore, considering that this study population is extremely busy and that no incentive was provided for participation, the average response time of the survey and the number of open-ended questions were minimized, so the methodology and questions themselves may have limited the study findings. Semi-structured in-depth interviews with this population may be more successful. Follow up research is needed to confirm and/or provide a more thorough assessment of objectives associated with this study.

Conclusions

Based on survey responses, it can be concluded that adoption of four practices

may foster enhanced utilization of HE: recruitment of trained HE professionals and involvement of local stakeholders in program development; prioritization of HE programs in national budget planning; implementation of additional programming focused on disease prevention, immunization, maternal- and childhood-related matters; and more concrete HE program evaluation strategies. In summary, public HE-generated health improvements and additional education can be complementary to or substitute for more costly preventive and curative services; however, high-profile health administrators need greater guidance regarding prioritization of HE programs in national policy making, HE strategies in specific settings, and ways of strategically involving local stakeholders in program development. Although additional research with a larger, representative sample is necessary to confirm the preliminary findings associated with study objectives, findings yielded by this study can provide a critical foundation for enhancing the quality of HE program development and strengthening HE program evaluation in diverse nations worldwide.

Implications for Health Behavior Theory

Separate and distinct investments in HE, health promotion, and infrastructure development, along with monitoring of proportional distribution of funding and human resources for these key areas over multiple years, are important from a behavioral perspective. If perceived health-related values and health-positive behaviors do not evolve despite structural changes and more sophisticated services, steady countrywide economic growth will be impeded. For example, in the United States chronic diseases such as obesity and diabetes, along with risk behaviors such as substance use and failure to immunize, have increased health care costs and reduced productivity

(Chen et al., 2018). Likewise, if infrastructure and services are not enhanced despite improvements in values and behaviors, the consequences could be social frustration, protests, or even revolution. For example, Brazilian protests were led by more educated, middle-class individuals who were disgruntled by ineffective public education, health, and transportation systems (Hargreaves, 2013).

International agencies such as the World Bank, which fund health and medical education programs, have observed that trickle-down economics do not much impact rural areas and highest-need communities (World Bank, 2015). Concurrently, impressive claims made by governments regarding unfettered access to adequate educational opportunities appear to be either exaggerated or false (Zajacova & Lawrence, 2018). While both claims represent strategies targeting relatively short-term results, an applicable continuum for achieving education-assisted behavior change and necessary structural conditions exists (Simonds, 1984). Along this continuum, situations occur where appropriate behavior change, achieved via educational programs, precedes structural transformations. Conversely, situations occur wherein education-assisted behavior change can only succeed in the presence of structural transformation. In between are situations where behavior change and structural transformation act as complementary strategies. Knowing where and how a priority behavior change in a given community should occur on this continuum is a major challenge to HE administrators. Therefore, it is important to guide high-profile administrators and politicians through public health education and behavior change projects in order to develop longer-term strategies and policies, rather than expecting short-term, impressive outcomes.

Discussion Questions

1. What are the strategies for additional investigation with a larger, representative sample from developed and developing countries? This adjustment will ensure that compiled data better reflect differences in conditions, based on variations in country, gender, education level, employment type, and age. Due to correspondence difficulties with busy health administrators participating in such studies, researchers can consider either a chain-referral sampling method or an international event, such as the World Health Assembly of the WHO, for survey administration to help increase rates of participation and survey completion.

2. What are the specific areas of HE that should be addressed in future research in order to better assess levels of prioritization with strengths and barriers in both developing and developed countries, comparatively? It is also important to explore how developed and developing countries can establish mutually beneficial partnerships that strengthen health education in these specific areas and address emerging public health issues.

Acknowledgments

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<u>Supplementary Material</u>

Global Perspectives for Strengthening Health Education

Before completing this questionnaire please note the following:

1. The attached survey is about health education. We are asking you (and your counterparts throughout the globe) to tell us about the status of health education in your country. The World Health Organization (WHO) defines **Health Education** as any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes.

2. In addition to completing this survey, we would very much appreciate receiving any official document of your country about the topics discussed in this survey. Please attach any document to the questionnaire, either by email, fax, and post or simply by including the web link. We would prefer English versions where possible; however, native language documents will also be accepted.
3. We are sending the questionnaire as GPSHE.doc and pdf. We suggest you to save the file GPSHE.doc in your own computer as GPSHE_anwer.doc before filling in the questionnaire.

Part 1 – Personal Particulars of Respondent

Surname:	First name:	Initials:	
What is your current position/ job title in the Ministry/Department:			
What country do you represent?			
When did you start working in the Health Ministry/Department of your country?			Year
When did you start working in your current position at the Health Ministry/Department of your country?			Year
Telephone/ fax numbers:	Country code:		Area code:
Tel (1)	Tel (2)	Fax (1)	Fax (2)
e-mail (1) *Please provide this to receive the gift card*		e-mail (2)	

How old are you?	Years		
Are you female or male?	Female Male		

What is the highest grade or level of schooling/education that you have completed?

☐ Less than primary school

☐ Primary school (grade 1-5 level in school)

☐ Secondary school (grade 6-12 level in school)

☐ Diploma or equivalent professional certificate

☐ College or university (BA/BS/BSc/LLB/MBBS or equivalent)

☐ Postgraduate education (MA/MS/MSc/LLM/MBA/JD/MD/PhD or equivalent)

Have you ever personally been involved in conducting any "Health Education" program/intervention?

☐ Yes

☐ No

☐ Cannot remember

If we need to contact you for clarifications, and you are not available, who else can we contact?

Surname:	Title:	Initials:	
First name:			
Telephone/ fax numbers:	Country code:	Area code:	
Tel (1)	Tel (2)	Fax (1)	Fax (2)
e-mail (1)		e-mail (2)	

Part 2 – Perspectives for Strengthening Health Education

1) In your country, what is the relative importance of health education, compared to other health programs and services? Using any number from 1 to 10, where 1 is "Not at All Important" and 10 is "Extremely Important", what number would you use to rate the level of importance?

Not at All Important   Extremely Important

1	2	3	4	5	6	7	8	9	10

2) What is your best estimate of the percentage of adults in your country who get information about health issues from various sources (please circle only one percentage for each source

Percent (%)

Source	<10	10	20	30	40	50	60	70	80	90	100
Newspapers, magazines, books or brochures	<10	10	20	30	40	50	60	70	80	90	100
Television, radio, internet or videos/movies	<10	10	20	30	40	50	60	70	80	90	100
Doctors, nurses or public health workers	<10	10	20	30	40	50	60	70	80	90	100
Meetings, conferences or health camps	<10	10	20	30	40	50	60	70	80	90	100
Do not get health information from any source	<10	10	20	30	40	50	60	70	80	90	100

3) What is your best estimate of the percentages of adults in your country who know about current health issues (please circle only one percentage for each health issue):

Percent (%)

Health issue	<10	10	20	30	40	50	60	70	80	90	100
Their (and family's) current health problems	<10	10	20	30	40	50	60	70	80	90	100
Control and prevention of common infections	<10	10	20	30	40	50	60	70	80	90	100
Healthy nutrition and physical activity	<10	10	20	30	40	50	60	70	80	90	100
Mental health problems and prevention	<10	10	20	30	40	50	60	70	80	90	100
Use of tobacco, alcohol, and addictive drugs	<10	10	20	30	40	50	60	70	80	90	100
Maternal and child health	<10	10	20	30	40	50	60	70	80	90	100

4) To what extent do members of these population groups in your country benefit from health education? Using any number from 1 to 10, where 1 is "No Benefit" and 10 is "Great Benefit", circle one option for each population group.

No Benefit   Great Benefit

Population group										
Urban people	1	2	3	4	5	6	7	8	9	10
Rural people	1	2	3	4	5	6	7	8	9	10
School children (ages 5-17)	1	2	3	4	5	6	7	8	9	10
Young adults (ages 18-24)	1	2	3	4	5	6	7	8	9	10
Adults ages 25-64	1	2	3	4	5	6	7	8	9	10
Older adults (older than 65)	1	2	3	4	5	6	7	8	9	10
Women	1	2	3	4	5	6	7	8	9	10
Pregnant women	1	2	3	4	5	6	7	8	9	10

5) To what extent are each of the following factors considered a weakness or a strength in health education services and campaigns provided by your ministry/department? Using any number from 1 to 10, where 1 is "Great Weakness" and 10 is "Great Strength", circle one option for each service or campaign?

Great Weakness   Great Strength

1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

Policies
Staffing levels
Funding
Coordination
Qualifications of health educators
Knowledge among health educators
Skills among health educators
Experience among health educators
Priority given to health education

6) How much does each of the following organizations contribute to health education in your country? Using any number from 1 to 10, where 1 is "No Contribution" and 10 is "Great Contribution", circle one option for each organization?

No Contribution   Great Contribution

1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

Ministry/Department of Health
Other ministries or departments
Consumer/patient groups/organizations
Public sector clinics or hospitals
Private health care practices, clinics or hospitals
Universities/ academic institutions/schools
WHO collaborating centers
Local NGOs/religious missions/ charities
Public sector research organizations
Private sector research organizations
Expert advisory panels
Disease surveillance and monitoring units
Regulatory/standard setting authorities
Public insurance companies
Private insurance companies
Professional associations (medical, nonmedical)
Other public companies
Other private companies
International funding agencies (e.g., World Bank)
International NGOs (e.g., UNICEF, CARE)
Other

7 – Estimate the level of priority for addressing each of the following health issues in your country. Using any number from 1 to 10, where 1 is "Very Low Priority" and 10 is "Very High Priority", circle one option for each health issue?

	Very Low Priority			Very High Priority						
Control and prevention of common infections	1	2	3	4	5	6	7	8	9	10
Nutrition	1	2	3	4	5	6	7	8	9	10
Physical activity	1	2	3	4	5	6	7	8	9	10
Mental health problems and prevention	1	2	3	4	5	6	7	8	9	10
Use of tobacco, alcohol, and addictive drugs	1	2	3	4	5	6	7	8	9	10
Maternal and child health	1	2	3	4	5	6	7	8	9	10

8 – Does your country have one board or committee that is responsible for health education? *Mark either Yes or No.*	Yes	No

9 – Does your country have an official document that includes priorities in health education? *Mark either Yes or No.*	Yes	No

10 – Is there an official document on the subject of strengthening health education at national level? *Mark either Yes or No.*	Yes	No

11 – Below, please indicate the kinds of health education your Ministry/Department funds? *Mark either Yes or No.*		
A – Health education conducted by the Ministry/Department staff	Yes	No
B – Health education programs contracted out by the Ministry/Department	Yes	No
12 – Please estimate the percentage of your Ministry/Department total budget that is spent on:		
A – Health education in curative care (medical) services	_____ %	
B – Public health promotion	_____ %	

13 – Were funds allocated to health education in your country clearly identifiable in the Ministry/Department budget for 2014? *Mark either Yes or No.*	
A – Yes	
B – No	
C – Funds are available for health education, but mixed in with other funding and hard or impossible to link explicitly with health education	

14 – Are the criteria of health education funding in your country included in the national health plan? *Mark the appropriate option with an X.*	
No, we don't have a national health plan	
No, health education funding criteria are not included in the national health plan.	
Yes, health education funding criteria are included in the national health plan	
15 – Briefly describe how your Ministry/Department evaluates your health education programs.	

16 – List the organizations/institutions/agencies that fund health education programs in your country (international, national, regional, public or private).

17 – In your country, what actions do you think ought to be taken to strengthen health education?

18 – Below, please name the advisory structures, agencies, and other organizations that are responsible for identifying health education priorities in your country.
19 – Below, list the job titles of health educators in your Ministry/Department? (for example, public health nurse)

20 – Below, please describe how your Ministry/Department collects information on the health education needs and priorities from health practitioners, health workers, other organizations, and the general public in your country (briefly describe this process)?

21 – Below, please add any other health issues that are currently high priority in your country?

22 – In what ways could the World Health Organization as well as other international and local non-governmental organizations better contribute to strengthening health education in your country?