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The challenge of moral ambiguity: Insights from global health program leaders' experiences

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Insights from global health program leaders' experiences

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Abstract

Introduction: Global health programs (GHPs) provide a wide range of health care services, globally. But there is a significant gap in our understanding of the ethical challenges GHP leaders encounter in their day-to-day work. Understanding how GHP leaders address ethical challenges is an important first step toward improving the relevance and precision of ethical guidance for GHPs.

Methods: We employed a qualitative case study approach using grounded theory data collection and analysis methods. We conducted face-to-face interviews with nine program directors and two senior leaders at the Task Force for Global Health (TFGH) in Decatur, GA.

Results: We identified 10 categories of ethical challenges encountered by GHP leaders: (1) Ethical misalignment between funders and implementing partners; (2) Budgets functioning as constraints on ethical decision-making; (3) The limited impact of programs on improving host country capacity; (4) Concerns about missed opportunities to benefit host country communities; (5) Shortcomings in current ethics guidance; (6) Issues in data governance, stewardship and management; (7) Navigating complex sociocultural contexts; (8) Photography in the context of global health programs; (9) Trustworthiness and reputational risks; and (10) Accountability for unintended consequences. The challenges often result in divided or conflicting loyalties for GHP leaders and uncertainty about what to do. We have characterized this form of uncertainty as 'moral ambiguity,' which we define as the inability to discern the best ethical way forward when there is tension or conflict among multiple stakeholder interests.

Discussion: Our findings suggest that moral ambiguity is a common experience for GHP leaders and that current approaches to global health ethics fail to guide and support GHP leaders to recognize and address moral ambiguity and limit the distress it can cause. The experiences of GHP leaders offer important diagnostic insights for improving the way GHPs are imagined, financed, delivered, and evaluated.

Global health is fraught with complex ethical challenges. These challenges have become the focus of a growing body of scholarly literature and educational programming, and these contributions have helped to elevate the visibility of ethics in global health. But the field of global health ethics continues to be dominated by description and analysis of ethical problems, with much less attention paid to providing global health practitioners with effective guidance and support as they navigate these issues in their programs and projects.

Global health programs (GHPs) are the *de facto* providers of a wide range of health care services globally, including disease control and elimination, water and sanitation interventions, immunization and vitamin A distribution, to name just a few. The coordination and management of GHPs often involves a top-down approach to all aspects of programming, including staffing decisions, priority-setting, organizational structure, activity planning, and implementation. Notably, global health programs are funded, designed, and managed primarily in high-income countries (HICs), which can limit and undermine the input, authority, and power of affected populations. Despite their significant contributions, these 'imported' programs can inadvertently undermine the national health systems they aim to support [1-3].

Because of their considerable power over a wide range of programmatic and logistical decisions, GHP leaders—including program directors and others in senior leadership positions—have a unique ethical responsibility for the outcomes of their programs, both positive and negative. GHP leaders from HICs are often required to act as diplomats, consulting clinicians, and advisors to country health authorities and their implementing partners, while ensuring their programs are implemented on time, effectively, and within budget, according to the terms of their funding agreements. This constant balancing of the interests of stakeholders within the program against the interests of external partners and intended program beneficiaries pulls program directors in various and sometimes conflicting directions. And despite the inevitable ethical complexity of these situations, research has shown that program leaders and public health practitioners may "lack the experience, time, resources (including training), or even motivation to deliberately consider ethics in their daily work and often rely on professional experience or one's own personal moral foundation in negotiating challenging ethical issues." [4].

There is a significant gap in our understanding of the nature and scope of ethical issues GHP leaders encounter in their day-to-day work. And even less is known about how these ethical challenges are experienced and managed, and how they affect the GHP leaders themselves, their programs, and their many collaborating partners globally and in-country. Failure to recognize these issues, and to improve the necessary support and guidance for GHP leaders to navigate them effectively, is potentially detrimental for all GHP stakeholders. Understanding how GHP leaders interpret and address ethical challenges is an important first step toward improving the relevance and precision of ethical guidance for GHPs. And, given the growing momentum of calls for "country ownership" of global health programming [5]—which reflect a wide range of ethical considerations—greater attention to the experiences of GHP leaders might offer useful insights about obstacles to, and potential facilitators of, authentic country ownership.

Methods

To address this critical gap in knowledge, we employed a qualitative case study approach using grounded theory data collection and analysis methods to generate a clearer picture of the ethical challenges faced by GHP leaders. Our analysis aimed to produce a taxonomy of prominent ethical challenges and explore the ways in which respondents recognize and manage these challenges in their daily work. We conducted face-to-face interviews with nine program directors and two senior leaders at the Task Force for Global Health (TFGH) in Decatur, GA (https://www.taskforce.org/); an international non-profit organization that serves as the secretariat or administrative hub for 16 global health coalitions, networks, and partnerships working to address a variety of large-scale health problems. This unique and highly concentrated collection of major global health programs represents exceptional scale and reach among GHPs (Task Force for Global Health, 2022). Collectively, the TFGH programs led by the GHP leaders represent investments of more than \$1B/year and the GHP leaders have hundreds of years of program management experience. The TFGH provides national programs in low and middle-income countries (LMIC)s with administrative, financial, technical, and human resources. ALG and DGA lead the Focus Area on Compassion and Ethics (FACE) at TFGH.

The project began with a request from TFGH leadership for FACE, led by DGA and ALG, to conduct a review of the need for ethics education and support services among programs at the Task Force for Global Health (TFGH). Because of their experience with ethics and stakeholder engagement in global health, MG and JVL were invited by FACE to assist with interviews of the GHP leaders and analysis of the findings about the ethical challenges they encounter in their programs. GHP leaders were invited to participate in the interviews by the FACE team and informed that the aim was to help determine the need for ethics education and support for GHPs housed at the TFGH. Nine GHP leaders were available and agreed to participate in the interviews. Before beginning the interview, each participant gave their permission to conduct the interview and for the interview to be recorded to ensure accuracy in the analysis.

The initial findings were presented to the TFGH GHP Directors (leaders) and TFGH Senior Leadership. During the discussion, the GHP directors emphasized the broader relevance of the interview findings for the global health community, and the TFGH leadership subsequently encouraged and approved a secondary analysis for publication (see Ethics Statement, below).

In keeping with grounded theory methods, interviews were structured to elicit interviewes' perspectives and experiences in their own words and framing. Interviews ranged in length from 35 to 100 minutes, were audio-recorded and transcribed verbatim using Otter AI, and cross-checked to ensure accuracy. Data analysis was conducted between interviews, and any new insights identified during the analysis were explored in subsequent interviews. The analytic approach employed combined techniques of grounded theory and qualitative description [6-8]. Two main rationales informed our choice of method. First, grounded theory emphasizes the experiences of participants, the meaning of these experiences to participants, and their understanding of ethical challenges [9], as opposed to seeking data to test an investigator's hypothesis. Second, the grounded theory method aims to generate a working theory of the phenomenon in question. The goal, in this case, was to produce an explanatory account that combines rich description of the social processes and circumstances that give rise to the reported ethical issues and challenges, with an explanation of the nature of the ethical issues and challenges themselves.

Interview transcripts were coded using ATLAS.ti v. 8.4.5 [10] to identify key concepts, categories, and patterns [6,8,9,11]. A constant comparative approach was used to compare findings within and across

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2. Funding and budgets functioning as constraints on ethical decisionmaking	Situations in which funders, or funding organizations' policies, limit or constrain the judgement of GHP leaders about the appropriate utilization, allocation or distribution of funds	"So, the funders are well past the era where they lived with that, well, you're a charity and we just give you money and hope you will go do good. That used to be the approach. The expectation out of the funders was quite minimal. That has changed. Totally, totally they benchmark our operation against any sophisticated modern business. They don't care if you're a charity or not, or if you're doing this for the good of people or making profit. It's basically you should operate this way, and that's the standard, so make it happen"
3. Concerns about the limited impact of programs on improving host country capacity:	Realizations, by the GHP leader, that their programs, as designed, financed and delivered, are not contributing significantly or sufficiently to country health system capacity.	"But for many of these other things we do, we have, we basically swoop in, do some good and out we go, and the country is no stronger than where you started. And so, building country capacity to interface with global health campaignsand interface effectively, be partners and not slow them down, but accelerate progress of it, broaden the reach of those campaigns. That's the way it ought to be. But it's not going to happen just because we run a campaign out of Atlanta or New York or out of WHO, it's going to have to be intentional that we build that capacity."
4. Concerns about missed opportunities to benefit host country communities	Situations in which GHP leaders identify potential opportunities to benefit country communities that are precluded by current policies or practice conventions.	"so we've talked about that dilemma, how best to treat folks who have been missed in the routine program, when you have the opportunity to discover that they haven't been treated, and you're in contact with themif you give them a pill at that time, it's going to affect the result of the [program intervention]"
5. Ethical shortcomings in current guidance and practice conventions	Situations in which there is no available ethical guidance for a given challenge, or that the available guidance is either out of date, or otherwise at odds with GHP leaders' intuitions.	"Thirty years agothe assumption was that the Ministry of Health had this paternalistic responsibility to make decisions about public health interventions. Andit was the responsibility of the people in the community to participatethere wasn't a choiceThe world has moved on. But you know, we have not caught up with the change."
6. Issues in data governance, stewardship and management	Situations in which GHP leaders experience uncertainty about how to manage ethical issues related to the collection, storage, stewardship and use of data.	"I'm thinking broadly about ethics, putting in the data system. There's really a lot of stuff that goes into thatwith data usage, and privacy, how you store data, who owns the data."
7. Challenges with the navigation of complex sociocultural contexts	Situations in which expectations of hosts or other stakeholders associated with local cultural norms and practices are at odds with the ethical norms and	"So, for example, I was invited somewhere to talk to about a program that we might be able to do. And the person, you know, made it very clear that he really wanted single malt So, one of the things that [we] have to be trained in is the Foreign Corrupt Practices Act. So how do we

	practices of the program and/or	represent to donors thatthey are deeply
	funder.	linking themselves[to] liability that might be
		related to the Foreign Corrupt Practices Act?"
8. Ethical challenges	Situations in which the ethical	"There's an ethics question involved in taking
related to photography in	appropriateness of taking,	photographs with people who are ill, or
the context of GH	utilizing and distributing photos	suffering or dying or dead. And, and so we're
programs	by the GHP for "official" uses, or	trying to make sure that we build those things
	by program staff for personal	into our global conference"
	use, is called into question.	
9. Reputational risks and	Situations in which collaboration	"the problem is, how do we help out in this
challenges related to	or cooperation with a particular	area [expanding access to drugs to support
maintaining the	individual or organization with a	disease elimination efforts], get our foot in the
trustworthiness of the	questionable ethical reputation	door and get something moving without looking
program	might undermine the reputation	like we're just helping this [pharmaceutical
	of the GHP, by association.	company] build their market? I am going to
		come back to that, because that's a repeating
		theme all the time."
10. Accountability for	Situation in which GHP leaders	"And that's where we have been, totally
unintended	experience concerns about	trusting that whoever is in charge of that
consequences	potential unintended	program, that they know what they're doing,
	consequences of their actions or	and can do it well. We have had no institutional
	policies, especially when	processes or approaches that would have even
	appropriate accountabilities are	allowed us to detect if they weren't doing it
	not in place.	We haven't had any institutional processes that
		would detect that we are doing any particular
		abuses"

The problem of moral ambiguity

The challenges of weighing and balancing interests in the context of complex networks of partner relationships often result in divided or conflicting loyalties for GHP leaders. At the most practical level, these challenges arise due to uncertainty about what to do—i.e., what course of action represents the most ethical approach in a given set of circumstances, as illustrated by the ethical challenges presented in Table 1—and about what consequences are likely to follow an action or decision. We have characterized this form of uncertainty as 'moral ambiguity,' which we define as the inability to discern the best ethical way forward when there is tension or conflict among multiple stakeholder interests, particularly when a decision or action could result in harm to some of them. Moral ambiguity arises from a recognition of the implications of one's decisions for the interests of others—an ethical awareness.

Ethical awareness leads GHP leaders into a consistent process of deliberation—either alone in personal reflection, or with others—organized around four key questions: (1) What's right? Respondents want to do the right thing, but they are often unsure what is right in the specific circumstances. This is complicated by the fact that they need to consider what is "right" for a range of stakeholders, e.g., funders, implementation partners, intended beneficiaries, and for the field in which they work (e.g., NTD control and elimination); (2) Who do we serve? Who are the stakeholders? Why are they stakeholders? What stakeholder interests should be given priority in a given decision? Are there relationships or loyalties (e.g., with donors) that create specific obligations? Are those obligations potentially in tension or in conflict with obligations they might have to other stakeholders' interests?; (3) What do I need to do? What is required in order to do the right thing? What is the ethical goal? What new obligations will

doing the right thing create? Which of these obligations fall to me, or to my program? Which fall to other individuals or organizations? What is required to fairly execute these obligations?; and (4) *On what authority should the decision be made?* Am I the person who should be making this decision or taking this action? Does the decision-making process provide sufficient legitimacy for this type of decision? Do I, or my program, have the necessary authority or moral standing to make the decision? Table 2 presents examples for each question.

Table 2: Key elements of moral ambiguity:

Questions	Quote
(1) What's right?	"The question is, do we keep treating with a single drug? Or do we wait until we have the two drugs, the two drugs probably won't be available [for more than a year]. So, in that interim, that child has potentially developed paralysis. Or in the meantime, they are excreting virus, maybe for, you know, years"
(2) Who do we serve?	" it is finding the balance between your core message and some of the practicalities of what you have to do to work with your donors. And for some of our members, they see it very much as an ethical issue"
(3) What do I need to do?	"So, what do you have to do? When do you decide that you're going to roll out a scabies program or whateveryou know, what are the factors that are involved in making those choices at a country level? And how, how do you have an appropriate level of dialogue around whether or not that's an appropriate use of limited country resources? So, you know, we, we tend to drive things and drive our discussions with countries around our own narrow perspectives."
(4) On what authority should the decision be made?	"But all of those activities really are about protecting the health of all populations, right? In a way that all people in the whole population get health. So inevitably that's tied to these very difficult hard questions about equity. We've seen that in some of our disease elimination programssome of the big challenges were about getting at people who are harder to reach whether it's just that they're a mobile population, or whether they're disenfranchised within the country. And we have to ask ourselves, if you keep saying, get to the final mile. Can you ignore these people? Even if the countries you work with want to? Is that going to be acceptable for us?"

The ethical awareness and moral ambiguity described above create a significant burden for GHP leaders, who must routinely manage these experiences as part of their day-to-day program management.

"I haven't mastered this, many people will tell you, I have not mastered this... But we're in this together, nobody's got it figured out."

"I write to [ethics colleague], just kind of as things come up, and my gut says we should do this or this, but let me see what [ethics colleague] has to say. And [s/he] takes it to the next level of analyzing it. I see the value in that. And I don't know if other programs do that."

The GHP leaders recognized that moral ambiguity is a common source of anxiety and can even have a corrosive effect on the motivation and well-being of whole programs.

"Why are we feeling uncomfortable? Well, we were doing experiments, clinical trials, and then basically, over a period of half a dozen years, we have started treating millions of people, and not

really thinking about where this is going or, what are the negatives? What are the downsides to this? Nobody really assesses that."

just that that seems to me to be extraordinarily risky. And as a community, we're making decisions for people who don't yet have enough information to make that decision for themselves. It just, that one gives me the shivers."

Some participants believed that the core questions of moral ambiguity should receive greater attention in global health program management. For example,

"Wouldn't it be nice to have somebody help us do an ethical analysis? There might be a funder tomorrow, where I think where we could really do some good with that funding, and there might be some issues that are sort of optics issues, but there might be other real issues that would be nice to have somebody help us think through those things."

Discussion

Our findings suggest that moral ambiguity is a common experience for GHP leaders and that current approaches to global health ethics fail to provide the guidance and support that GHP leaders and practitioners need in their day-to-day decision-making to recognize and address moral ambiguity and limit the distress it can cause. Many factors may serve to inure them to the inevitability of moral ambiguity in their work and perhaps even to a degree of tolerance for some level of moral distress. In addition to the relatively low status of ethics in global health education, our findings suggest five possible explanations for the persistence of moral ambiguity in global health, each of which presents some possible targets for policy and/or practice improvement.

Familiarity: moral ambiguity arises so frequently in global health programs that GHP leaders and

Tolerance: because moral ambiguity is common, it is implicitly viewed as an inherent feature of global health programs. And because it is rarely explicitly identified or addressed, it is tolerated as an inevitable aspect of the work.

Convention: Policies, rules, and regulations that comprise the current ethics paradigm emphasize abstract principles, institutional accountabilities, and technical aspects of program implementation, which are inadequate to address the relational challenges, uncertainties, and irreconcilable stakeholder interests that give rise to moral ambiguity.

narratives of 'success' that obscure more balanced critical reflections about the global health enterprise, a point made emphatically by Richard Horton in a Lancet editorial "The false narrative of 'tremendous progress" [12].

Fear or discomfort: Acknowledging moral ambiguity may amount to "scratching the surface" of the full depth of ethical complexity in global health, which can contribute to moral distress and the experience of threat to one's identity or the identity of the GHP itself.

The ethical challenges faced by GHP leaders, the nature of moral ambiguity itself, and even the factors that perpetuate experiences of moral ambiguity confront GHP leaders with highly demanding challenges

in moral reasoning—i.e., "...how we recognize moral considerations and cope with conflicts among them and about how they move us to act..." [13]. Moral reasoning is complex and multi-faceted, with important empirical, psychological, and practical dimensions that must be considered when deciding an appropriate course of action. Current ethics approaches and training fail to incorporate or enable the sophistication in moral reasoning that is required to navigate moral ambiguity. Most global health practitioners rarely, if ever, receive the depth and rigor in their ethics education and training that they receive in statistics and program management. As a result, they are ill-prepared to navigate moral ambiguity, which — as our findings indicate — is a common and often perplexing experience for those working in GHPs.

Improved training and education in global health ethics could help GHP professionals at all levels to prepare for the kinds of challenges described by GHP leaders and provide them with language, concepts, theories, rationales and practical skills to help them navigate these challenges as they arise. The challenges described above also offer opportunities for empirical studies to explore the implications of various decisions and strategies, which could help to build a knowledge base to complement theoretical perspectives in ethics. There is already a rich empirical literature in research ethics [14] and even calls for an 'implementation science' for research ethics [15]. And in related fields, such as strategic management and decision science, empirical research is understood to be indispensable for improving policy and practice to support effective decision-making. Empirical findings about the implications of challenging decisions are the bread-and-butter of case-based learning in business and law schools. Given the unique stakes involved in global health programming—including profound questions about how to decolonize global health [16]—the discounting of the importance of complex ethical decision-making is a significant shortcoming in global health training and practice.

But the challenges faced by GHP leaders go far beyond their individual skills in moral reasoning and decision-making. Deep problems exist in the way global health and global development programs are designed, funded and implemented. We heard repeatedly from GHP leaders that they had neither the time nor the necessary support and guidance to navigate their ethical challenges effectively. These deficits in time and support limit GHP leaders' opportunities to engage in productive discussions and deliberations with relevant stakeholders to gain a better understanding of how various programmatic decisions can result in trade-offs for stakeholders' interests. Stakeholder engagement holds significant potential to improve ethical decision-making in GHP and potentially reduce the experience of moral ambiguity for GHP leaders. But to realize this potential, funders and donors must exercise their unique power and opportunity to elevate the practice in the programs they fund.

What is needed is a re-framing. Ethics is still viewed by many as a form of abstract, academic (in the pejorative sense), philosophic theorizing, conducted naively by ethics practitioners who are remote from the kinds of problems described by the GHP program leaders. There is still a kernel of truth in this depiction, despite many successful efforts to integrate ethics more effectively into the design, management and evaluation of GHPs [17-20]. Funders and donors have unique power and opportunity to elevate the status of ethical decision-making in the GHPs they support, by testing new training and consultation strategies to improve the forecasting, diagnosis, analysis and management of ethical challenges in GHPs. And greater emphasis could be placed on evaluating decisions and proposed 'solutions' to ethical challenges to gain a better understanding of the value they create and where improvement is needed. In strategic management, an organization's awareness of the impact of its decisions on stakeholders is viewed as an essential starting place for innovation to improve organizational effectiveness [21]. Global health needs to follow suit.

The moral ambiguity reported by the GHP leaders—all of whom are deeply experienced and highly skilled managers—should be heeded and welcomed for its diagnostic value in illuminating some of these neglected aspects of the global health enterprise, which we seem all too willing to tolerate. The capabilities necessary to deal with these challenges effectively are too readily dismissed as "soft skills" or luxuries to be developed and prioritized only once the 'more important' technical aspects of global health programs have been attended to. This discounting is mirrored—or established—in global health education in universities. If moral reasoning is a necessary complex skill for GHP leaders and their teams, perhaps more sober reflection is required on whether the current presumptions about course requirements, pedagogical strategies, and faculty experience and capacity in ethics are fit for the task. If moral reasoning is as critical for the effective management of GHPs as the program leaders' responses suggest, then perhaps it should be weighed differently against the probabilistic and statistical reasoning that dominates the global health academy. Deans of schools of public health—where most global health programs reside—might look at the current ratios of faculty in biostatistics to faculty in ethics to get a baseline estimate of the scale of the disparity.

One of the issues in our findings that deserves additional investigation is the corrosive power of moral ambiguity in global health programs. Although our study was not designed as a deep investigation into the psychological impact of moral ambiguity for GHP leaders, it was clear during our interviews that some form of distress was a common consequence of the kinds of moral challenges they face in their work. GHP leaders also expressed frustration that the structure of their institutions, and the current design and governance of global health programs, often does not allow them the time or support they need to assemble a more thorough representation of stakeholder interests around a given challenge, or adequate time for the deliberation among stakeholders to achieve consensus about the best way to address the challenge. Once again, the distress of GHP leaders may serve as an important symptom of the status quo in global health programming, and of the limitations of current global health ethics approaches, in addition to a legitimate management challenge in its own right.

While our study focused on GHP leaders in a HIC setting, it is critically important that our analysis is not viewed as privileging their challenges over the challenges faced by their partners in LMICs or the very populations they aim to serve with their programs. Our intention is quite the opposite. The insights offered by the GHP leaders in our sample provide a vivid image of the ethical complexity of the current status quo in global health programming. They also offer some diagnostic value in terms of aspects that require more explicit examination as the field of global health evolves to redesign the way programs and campaigns are imagined, financed, delivered, and evaluated. As Orbinsky states, "ethics must be central to reframing and reformulating our choices and actions" in the pursuit of a global health that avoids reproducing and reinforcing inequities and injustice [22]. Although ethical challenges and moral ambiguity are inevitable, regardless of how programs are designed and delivered in the future, it seems reasonable to expect that many of the tensions reported by GHP leaders could be reduced or resolved as we make progress on the necessary transition to more authentic ownership of these programs by countries [5].

Conclusions

The ultimate value of global health ethics lies beyond the narrow regulatory mindset that dominates institutional and programmatic reasoning in global health. The skills, knowledge, and maturity required by GHP leaders and their teams to address the complex ethical challenges they face on a day-to-day basis will require more than just guidance documents and "compliance" with standardized procedures. It will require a different understanding and appreciation of the role and value of moral reasoning as part of developing effective ethical guidance and support for managing moral ambiguity in global health.

DGA and ALG are employees of the Task Force for Global Health. None of the authors report any competing interests.

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The challenge of moral ambiguity: Insights from global health program leaders' experiences

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Abstract

Introduction: Global health programs (GHPs) provide a wide range of health care services, globally. But there is a significant gap in our understanding of the ethical challenges GHP leaders encounter in their day-to-day work. Understanding how GHP leaders address ethical challenges is an important first step toward improving the relevance and precision of ethical guidance for GHPs.

Methods: We employed a qualitative case study approach using grounded theory data collection and analysis methods. We conducted face-to-face interviews with nine program directors and two senior leaders at the Task Force for Global Health (TFGH) in Decatur, Georgia, USA.

Results: We identified 10 categories of ethical challenges encountered by GHP leaders: (1) Ethical misalignment between funders and implementing partners; (2) Budgets functioning as constraints on ethical decision-making; (3) The limited impact of programs on improving host country capacity; (4) Concerns about missed opportunities to benefit host country communities; (5) Shortcomings in current ethics guidance; (6) Issues in data governance, stewardship and management; (7) Navigating complex sociocultural contexts; (8) Photography in the context of global health programs; (9) Trustworthiness and reputational risks; and (10) Accountability for unintended consequences. The challenges often result in divided or conflicting loyalties for GHP leaders and uncertainty about what to do. We have characterized this form of uncertainty as 'moral ambiguity,' which we define as the inability to discern the best ethical way forward when there is tension or conflict among multiple stakeholder interests.

Discussion: Our findings suggest that moral ambiguity is a common experience for GHP leaders and that current approaches to global health ethics fail to guide and support GHP leaders to recognize and address moral ambiguity and limit the distress it can cause. The experiences of GHP leaders offer important diagnostic insights for improving the way GHPs are imagined, financed, delivered, and evaluated.

Strengths and limitations of this study

- 1. The study provides access to the experiences of a group of highly experienced leaders of large-scale GHPs.
- 2. The categories of ethical challenges produced through the analysis of the study data provide a framework of considerations that is relevant beyond the experiences of the TFGH GHP leaders who participated in the study.
- 3. The central finding of the study—the common experience of moral ambiguity among the study participants—provides evidence for the need to extend ethics education, training and guidance to support GHP leaders and their teams.
- 4. Further research will be required to determine how well the findings represent the experiences of other GHP leaders, particularly those from low and middle-income countries (LMICs).

Global health is fraught with complex ethical challenges. These challenges have become the focus of a growing body of scholarly literature and educational programming, and these contributions have helped to elevate the visibility of ethics in global health. But the field of global health ethics continues to be dominated by description and analysis of ethical problems, with much less attention paid to providing global health practitioners with effective guidance and support as they navigate these issues in their programs and projects.

Global health programs (GHPs) are the *de facto* providers of a wide range of health care services globally, including disease control and elimination, water and sanitation interventions, immunization and vitamin A distribution, to name just a few. The coordination and management of GHPs often involves a top-down approach to all aspects of programming, including staffing decisions, priority-setting, organizational structure, activity planning, and implementation. Notably, global health programs are funded, designed, and managed primarily in high-income countries (HICs), which can limit and undermine the input, authority, and power of affected populations. Despite their significant contributions, these 'imported' programs can inadvertently undermine the national health systems they aim to support [1-3].

Because of their considerable power over a wide range of programmatic and logistical decisions, GHP leaders—including program directors and others in senior leadership positions—have a unique ethical responsibility for the outcomes of their programs, both positive and negative. GHP leaders from HICs are often required to act as diplomats, consulting clinicians, and advisors to country health authorities and their implementing partners, while ensuring their programs are implemented on time, effectively, and within budget, according to the terms of their funding agreements. This constant balancing of the interests of stakeholders within the program against the interests of external partners and intended program beneficiaries pulls program directors in various and sometimes conflicting directions. And despite the inevitable ethical complexity of these situations, research has shown that program leaders and public health practitioners may "lack the experience, time, resources (including training), or even motivation to deliberately consider ethics in their daily work and often rely on professional experience or one's own personal moral foundation in negotiating challenging ethical issues." [4].

There is a significant gap in our understanding of the nature and scope of ethical issues GHP leaders encounter in their day-to-day work. And even less is known about how these ethical challenges are experienced and managed, and how they affect the GHP leaders themselves, their programs, and their many collaborating partners globally and in-country. Failure to recognize these issues, and to improve the necessary support and guidance for GHP leaders to navigate them effectively, is potentially detrimental for all GHP stakeholders. Understanding how GHP leaders interpret and address ethical challenges is an important first step toward improving the relevance and precision of ethical guidance for GHPs. And, given the growing momentum of calls for "country ownership" of global health programming [5]—which reflect a wide range of ethical considerations—greater attention to the experiences of GHP leaders might offer useful insights about obstacles to, and potential facilitators of, authentic country ownership.

Methods

To address this critical gap in knowledge, we employed a qualitative case study approach using grounded theory data collection and analysis methods to generate a clearer picture of the ethical challenges faced by GHP leaders. Our analysis aimed to produce a taxonomy of prominent ethical challenges and explore the ways in which respondents recognize and manage these challenges in their daily work. We conducted face-to-face interviews with nine program directors and two senior leaders at the Task Force for Global Health (TFGH) in Decatur, Georgia, USA (https://www.taskforce.org/); an international non-profit organization that serves as the secretariat or administrative hub for 16 global health coalitions, networks, and partnerships working to address a variety of large-scale health problems. The TFGH houses global health programs focused on disease eradication, immunization, health system strengthening, epidemiological and bioinformatics technical capacity development, and public health workforce development. This unique and highly concentrated collection of major global health programs represents exceptional scale and reach among GHPs (Task Force for Global Health, 2022). Collectively, the TFGH programs led by the GHP leaders represent investments of more than \$1B/year and the GHP leaders, collectively, have hundreds of years of program management experience. The TFGH provides national programs in low and middle-income countries (LMIC)s with administrative, financial, technical, and human resources. ALG and DGA lead the Focus Area on Compassion and Ethics (FACE) at TFGH.

The project began with a request from TFGH leadership for FACE, led by DGA and ALG, to conduct a review of the need for ethics education and support services among programs at the Task Force for Global Health (TFGH). Because of their experience with ethics and stakeholder engagement in global health, MG and JVL were invited by FACE to assist with interviews of the GHP leaders and analysis of the findings about the ethical challenges they encounter in their programs. GHP leaders were invited to participate in the interviews by the FACE team and informed that the aim was to help determine the need for ethics education and support for GHPs housed at the TFGH. Nine GHP leaders were available and to participate in the interviews, which were conducted between July and September 2019. Before participating in the interview, each participant provided verbal consent (which was recorded) and agreed for the interview to be recorded to ensure accuracy in the analysis.

The initial findings were presented to the TFGH GHP Directors (leaders) and TFGH Senior Leadership. During the discussion, the GHP directors emphasized the broader relevance of the interview findings for the global health community, and the TFGH leadership subsequently encouraged and approved a secondary analysis for publication (see Ethics Statement, below). Funding for the study was provided by the TFGH.

In keeping with grounded theory methods, interviews were structured to elicit interviewees' perspectives and experiences in their own words and framing. Interviews ranged in length from 35 to 100 minutes, were audio-recorded and transcribed verbatim using Otter AI, and cross-checked to ensure accuracy. The study used a constructivist grounded theory analytic approach [6]. Rather than beginning with a fixed, scripted "interview guide", interviews began by asking participants about key domains that we aimed to elicit insights for, from their unique perspectives. These initial domains included the GHP leaders' perceived need for ethics support, the types of support that might be relevant for their programs, the circumstances that gave rise to the perceived need for ethics support, and the GHP leaders' views of the implications of these circumstances for their programs, their teams and partners, and for themselves personally. As the participants shared their experiences relevant to each domain, we

probed for clarification and prompted for additional detail and context, where necessary to clarify meaning and facilitate fair interpretation.

Data analysis was conducted between interviews, and any new insights identified during the analysis were explored in subsequent interviews. The analytic approach employed combined techniques of grounded theory and qualitative description [6-8]. Two main rationales informed our choice of method. First, grounded theory emphasizes the experiences of participants, the meaning of these experiences to participants, and their understanding of ethical challenges [9], as opposed to seeking data to test an investigator's hypothesis. Second, the grounded theory method aims to generate a working theory of the phenomenon in question. The goal, in this case, was to produce an explanatory account that combines rich description of the social processes and circumstances that give rise to the reported ethical issues and challenges, with an explanation of the nature of the ethical issues and challenges themselves.

Interview transcripts were coded using ATLAS.ti v. 8.4.5 [10] to identify key concepts, categories, and patterns [6,8,9,11]. A constant comparative approach was used to compare findings within and across interviews and among categories [6,11]. Techniques for ensuring analytic rigor and trustworthiness included comparison of coding between analysts, seeking alternative explanations for the data, and interrogating the coherence of interpretations through deliberations among the analysts [7]. These analytic approaches were discussed and carried out in regular, in-person meetings of the research team.

Ethics Statement

Following the authorization by TFGH leadership, a proposal for a secondary data analysis of the GHP leaders' interviews was submitted to the Emory University Institutional Review Board (IRB)—U.S. government Federal Wide Assurance #00005792—for review. The TFGH is an affiliate of Emory University. The IRB approved this secondary analysis (Study 00005823) on March 14, 2023 on the condition that the original transcripts for the internal review, and any data presented in publications, be de-identified. In the findings, below, we have presented representative quotes from the GHP leaders without attribution, in accordance with the condition of the IRB approval. And to reduce the likelihood of inadvertent identification of the GHP leaders we have been selective in the number and scope of the quotes we have presented to illustrate key findings from the interviews.

Results

Our analysis produced two main findings. First, we were able to identify and describe 10 categories of ethical challenges encountered by GHP leaders. Second, we found that these ethical challenges often leave GHP leaders uncertain about the most appropriate ethical response, a state that we have called "moral ambiguity."

Public Involvement

None

Ethical challenges faced by GHP Leaders

GHP leaders face a range of complex ethical challenges in their programs. The challenges described by our participants fall into 10 categories: (1) Ethical misalignment between funders, implementation partners, and host country partners; (2) Funding and budgets functioning as constraints on ethical decision-making; (3) Concerns about the limited impact of programs on improving host country capacity;

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(4) Concerns about missed opportunities to benefit host country communities; (5) Ethical shortcomings in current guidance and practice conventions; (6) Issues in data governance, stewardship and management; (7) Challenges with navigating complex sociocultural contexts; (8) Ethical challenges related to photography in the context of global health programs; (9) Reputational risks and challenges related to maintaining the trustworthiness of the program; and (10) Accountability for unintended consequences. Table 1 presents each category with a quote to illustrate the nature and scope of the category. Ellipses in quotes indicate that some text has been removed to improve the flow and readability of the quote. These adjustments have not changed or distorted the participants' intended meaning. Table 1: Examples of ethical challenges faced by TFGH program directors and senior leadership:

Category	Description	Example
1. Ethical misalignment between funders, implementation, and host country partners	Situations in which the expectations of GHP funders— either explicitly or implicitly— are at odds with GHP leader's intuitions about the ethically appropriate course of action	"We don't have time to put deep thought into things. And so we're aware that there are issues we should be dealing with but, you know, we're responding to donor demands and donor deadlines and you just put the blinders on and surge ahead. So that's where we are."
2. Funding and budgets functioning as constraints on ethical decisionmaking	Situations in which funders, or funding organizations' policies, limit or constrain the judgement of GHP leaders about the appropriate utilization, allocation or distribution of funds	"So, the funders are well past the era where they lived with that, well, you're a charity and we just give you money and hope you will go do good. That used to be the approach. The expectation out of the funders was quite minimal. That has changed. Totally, totally they benchmark our operation against any sophisticated modern business. They don't care if you're a charity or not, or if you're doing this for the good of people or making profit. It's basically you should operate this way, and that's the standard, so make it happen"
3. Concerns about the limited impact of programs on improving host country capacity:	Realizations, by the GHP leader, that their programs, as designed, financed and delivered, are not contributing significantly or sufficiently to country health system capacity.	"But for many of these other things we do, we have, we basically swoop in, do some good and out we go, and the country is no stronger than where you started. And so, building country capacity to interface with global health campaignsand interface effectively, be partners and not slow them down, but accelerate progress of it, broaden the reach of those campaigns. That's the way it ought to be. But it's not going to happen just because we rur a campaign out of Atlanta or New York or out of WHO, it's going to have to be intentional that we build that capacity."
4. Concerns about missed opportunities to benefit host country communities	Situations in which GHP leaders identify potential opportunities to benefit country communities that are precluded by current policies or practice conventions.	"so we've talked about that dilemma, how best to treat folks who have been missed in the routine program, when you have the opportunity to discover that they haven't been treated, and you're in contact with themif you give them a pill at that time, it's going to affect the result of the [program intervention]"

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these challenges arise due to uncertainty about what to do—i.e., what course of action represents the most ethical approach in a given set of circumstances, as illustrated by the ethical challenges presented in Table 1—and about what consequences are likely to follow an action or decision. We have characterized this form of uncertainty as 'moral ambiguity,' which we define as the inability to discern the best ethical way forward when there is tension or conflict among multiple stakeholder interests, particularly when a decision or action could result in harm to some of them. Moral ambiguity arises from a recognition of the implications of one's decisions for the interests of others—an ethical awareness. We are conscious of the complex and often contentious debate about the meaning and inter-relationship between the terms "ethics" and "morality". We have used the term "ethics" throughout, since the initial programmatic review asked GHP leaders about their need for "ethics" support. And we have adopted the term "moral ambiguity" since it already has some currency in fields such as philosophy, organizational ethics, economics and law [12] to refer to situations in which various decision makers are uncertain about the most ethical course of action for a given decision.

Ethical awareness leads GHP leaders into a consistent process of deliberation—either alone in personal reflection, or with others—organized around four key questions: (1) What's right? Respondents want to do the right thing, but they are often unsure what is right in the specific circumstances. This is complicated by the fact that they need to consider what is "right" for a range of stakeholders, e.g., funders, implementation partners, intended beneficiaries, and for the field in which they work (e.g., NTD control and elimination); (2) Who do we serve? Who are the stakeholders? Why are they stakeholders? What stakeholder interests should be given priority in a given decision? Are there relationships or loyalties (e.g., with donors) that create specific obligations? Are those obligations potentially in tension or in conflict with obligations they might have to other stakeholders' interests?; (3) What do I need to do? What is required in order to do the right thing? What is the ethical goal? What new obligations will doing the right thing create? Which of these obligations fall to me, or to my program? Which fall to other individuals or organizations? What is required to fairly execute these obligations?; and (4) On what authority should the decision be made? Am I the person who should be making this decision or taking this action? Does the decision-making process provide sufficient legitimacy for this type of decision? Do I, or my program, have the necessary authority or moral standing to make the decision? Table 2 presents examples for each question.

Table 2: Key elements of moral ambiguity:

Questions	Quote
(1) What's right?	"The question is, do we keep treating with a single drug? Or do we wait until we have the two drugs, the two drugs probably won't be available [for more than a year]. So, in that interim, that child has potentially developed paralysis. Or in the meantime, they are excreting virus, maybe for, you know, years"
(2) Who do we serve?	" it is finding the balance between your core message and some of the practicalities of what you have to do to work with your donors. And for some of our members, they see it very much as an ethical issue"
(3) What do I need to do?	"So, what do you have to do? When do you decide that you're going to roll out a scabies program or whateveryou know, what are the factors that are involved in making those choices at a country level? And how, how do you have an appropriate level of dialogue around whether or not that's an appropriate use of limited country resources? So, you know,

The ethical awareness and moral ambiguity described above create a significant burden for GHP leaders, who must routinely manage these experiences as part of their day-to-day program management.

"I haven't mastered this, many people will tell you, I have not mastered this... But we're in this together, nobody's got it figured out."

"I write to [ethics colleague], just kind of as things come up, and my gut says we should do this or this, but let me see what [ethics colleague] has to say. And [s/he] takes it to the next level of analyzing it. I see the value in that. And I don't know if other programs do that."

The GHP leaders recognized that moral ambiguity is a common source of anxiety and can even have a corrosive effect on the motivation and well-being of whole programs.

"Why are we feeling uncomfortable? Well, we were doing experiments, clinical trials, and then basically, over a period of half a dozen years, we have started treating millions of people, and not really thinking about where this is going or, what are the negatives? What are the downsides to this? Nobody really assesses that."

"You're rolling out, on a large scale, an experiment where we don't know all of the variables. It's just that that seems to me to be extraordinarily risky. And as a community, we're making decisions for people who don't yet have enough information to make that decision for themselves. It just, that one gives me the shivers."

Some participants believed that the core questions of moral ambiguity should receive greater attention in global health program management. For example,

"Wouldn't it be nice to have somebody help us do an ethical analysis? There might be a funder tomorrow, where I think where we could really do some good with that funding, and there might be some issues that are sort of optics issues, but there might be other real issues that would be nice to have somebody help us think through those things."

Discussion

Our findings suggest that moral ambiguity is a common experience for GHP leaders and that current approaches to global health ethics fail to provide the guidance and support that GHP leaders and practitioners need in their day-to-day decision-making to recognize and address moral ambiguity and limit the distress it can cause. Many factors may serve to inure them to the inevitability of moral ambiguity in their work and perhaps even to a degree of tolerance for some level of moral distress. In

addition to the relatively low status of ethics in global health education, our findings suggest five possible explanations for the persistence of moral ambiguity in global health, each of which presents some possible targets for policy and/or practice improvement.

Familiarity: moral ambiguity arises so frequently in global health programs that GHP leaders and program teams become inured to the experience.

Tolerance: because moral ambiguity is common, it is implicitly viewed as an inherent feature of global health programs. And because it is rarely explicitly identified or addressed, it is tolerated as an inevitable aspect of the work.

Convention: Policies, rules, and regulations that comprise the current ethics paradigm emphasize abstract principles, institutional accountabilities, and technical aspects of program implementation, which are inadequate to address the relational challenges, uncertainties, and irreconcilable stakeholder interests that give rise to moral ambiguity.

Governing Narratives: Experiences of moral ambiguity are negated, even overshadowed, by celebratory narratives of 'success' that obscure more balanced critical reflections about the global health enterprise, a point made emphatically by Richard Horton in a Lancet editorial "The false narrative of 'tremendous progress'" [13].

Fear or discomfort: Acknowledging moral ambiguity may amount to "scratching the surface" of the full depth of ethical complexity in global health, which can contribute to moral distress and the experience of threat to one's identity or the identity of the GHP itself.

The ethical challenges faced by GHP leaders, the nature of moral ambiguity itself, and even the factors that perpetuate experiences of moral ambiguity confront GHP leaders with highly demanding challenges in moral reasoning—i.e., "...how we recognize moral considerations and cope with conflicts among them and about how they move us to act..." [14]. Moral reasoning is complex and multi-faceted, with important empirical, psychological, and practical dimensions that must be considered when deciding an appropriate course of action. Current ethics approaches and training fail to incorporate or enable the sophistication in moral reasoning that is required to navigate moral ambiguity. Most global health practitioners—and practitioners in other fields, such as complex humanitarian interventions—rarely, if ever, receive the depth and rigor in their ethics education, training and guidance to support complex ethical decision-making that they receive in statistics and program management [15, 16]. As a result, they are ill-prepared to navigate moral ambiguity, which—as our findings indicate—is a common and often perplexing experience for those working in GHPs.

Improved training and education in global health ethics could help GHP professionals at all levels to prepare for the kinds of challenges described by GHP leaders and provide them with language, concepts, theories, rationales and practical skills to help them navigate these challenges as they arise. The challenges described above also offer opportunities for empirical studies to explore the implications of various decisions and strategies, which could help to build a knowledge base to complement theoretical perspectives in ethics. There is already a rich empirical literature in research ethics [17] and even calls for an 'implementation science' for research ethics [18]. And in related fields, such as strategic management and decision science, empirical research is understood to be indispensable for improving policy and practice to support effective decision-making. Empirical findings about the implications of challenging decisions are the bread-and-butter of case-based learning in business and law schools. Given the unique stakes involved in global health programming—including profound questions about how to

But the challenges faced by GHP leaders go far beyond their individual skills in moral reasoning and decision-making. Deep problems exist in the way global health and global development programs are designed, funded and implemented. We heard repeatedly from GHP leaders that they had neither the time nor the necessary support and guidance to navigate their ethical challenges effectively. These deficits in time and support limit GHP leaders' opportunities to engage in productive discussions and deliberations with relevant stakeholders to gain a better understanding of how various programmatic decisions can result in trade-offs for stakeholders' interests. Stakeholder engagement holds significant potential to improve ethical decision-making in GHP and potentially reduce the experience of moral ambiguity for GHP leaders. But to realize this potential, funders and donors must exercise their unique power and opportunity to elevate the practice in the programs they fund.

What is needed is a re-framing. Ethics is still viewed by many as a form of abstract, academic (in the pejorative sense), philosophic theorizing, conducted naively by ethics practitioners who are remote from the kinds of problems described by the GHP program leaders. There is still a kernel of truth in this depiction, despite many successful efforts to integrate ethics more effectively into the design, management and evaluation of GHPs [20-23]. Funders and donors have unique power and opportunity to elevate the status of ethical decision-making in the GHPs they support, by testing new training and consultation strategies to improve the forecasting, diagnosis, analysis and management of ethical challenges in GHPs. And greater emphasis could be placed on evaluating decisions and proposed 'solutions' to ethical challenges to gain a better understanding of the value they create and where improvement is needed. In strategic management, an organization's awareness of the impact of its decisions on stakeholders is viewed as an essential starting place for innovation to improve organizational effectiveness [24]. Global health needs to follow suit.

The moral ambiguity reported by the GHP leaders—all of whom are deeply experienced and highly skilled managers—should be heeded and welcomed for its diagnostic value in illuminating some of these neglected aspects of the global health enterprise, which we seem all too willing to tolerate. The capabilities necessary to deal with these challenges effectively are too readily dismissed as "soft skills" or luxuries to be developed and prioritized only once the 'more important' technical aspects of global health programs have been attended to. This discounting is mirrored—or established—in global health education in universities. If moral reasoning is a necessary complex skill for GHP leaders and their teams, perhaps more sober reflection is required on whether the current presumptions about course requirements, pedagogical strategies, and faculty experience and capacity in ethics are fit for the task. If moral reasoning is as critical for the effective management of GHPs as the program leaders' responses suggest, then perhaps it should be weighed differently against the probabilistic and statistical reasoning that dominates the global health academy. Deans of schools of public health—where most global health programs reside—might look at the current ratios of faculty in biostatistics to faculty in ethics to get a baseline estimate of the scale of the disparity.

One of the issues in our findings that deserves additional investigation is the corrosive power of moral ambiguity in global health programs. Although our study was not designed as a deep investigation into the psychological impact of moral ambiguity for GHP leaders, it was clear during our interviews that some form of distress was a common consequence of the kinds of moral challenges they face in their work. GHP leaders also expressed frustration that the structure of their institutions, and the current design and governance of global health programs, often does not allow them the time or personal support they need to assemble a more thorough representation of stakeholder interests around a given

While our study focused on GHP leaders in a HIC setting, it is critically important that our analysis is not viewed as privileging their challenges over the challenges faced by their partners in LMICs or the very populations they aim to serve with their programs. Our intention is quite the opposite. The insights offered by the GHP leaders in our sample provide a vivid image of the ethical complexity of the current status quo in global health programming. They also offer some diagnostic value in terms of aspects that require more explicit examination as the field of global health evolves to redesign the way programs and campaigns are imagined, financed, delivered, and evaluated. As Orbinsky states, "ethics must be central to reframing and reformulating our choices and actions" in the pursuit of a global health that avoids reproducing and reinforcing inequities and injustice [25]. Although ethical challenges and moral ambiguity are inevitable, regardless of how programs are designed and delivered in the future, it seems reasonable to expect that many of the tensions reported by GHP leaders could be reduced or resolved as we make progress on the necessary transition to more authentic ownership of these programs by countries [5].

The study has four important limitations. First, the aim of the initial data collection was to determine the educational, training, guidance and support needs of TFGH GHPs related to ethics. Although the GHP leaders provided a rich set of examples of the ethical challenges that arose in their work as context for their ethics support needs, it is reasonable to assume that greater detail and depth of analysis could have been possible had the initial focus of the interviews been on the nature of the ethical challenges themselves.

Second, because the study arose from an internal review of program needs at the TFGH, the development of a broader sampling logic for the analysis presented here was not part of the initial data collection strategy. The effect of this limitation is analogous to the implications of a convenience sample, which concedes imperfect representation of the phenomenon under investigation. Given the scope, breadth, geographic reach and complexity of funding and collaborative partnerships represented in the TFGH GHP portfolio, we believe that this limitation does not undermine the unique value of the insights presented here, as a window into the ethical complexity of GHPs.

In addition to questions about the representativeness of the types of challenges described by the GHPs, a third limitation of our study is that we are unable to estimate the prevalence of these challenges or their distribution among active GHPs. Although our study was not designed to provide insights about the prevalence of ethical challenges in GHPs, one potential value of our analysis is that it may provide an empirically grounded taxonomy of ethical challenges that could be examined for representativeness in further studies of GHPs.

Finally, as a result of our fixed sample, our study did not engage in-country partners of the GHPs, or even GHP staff, to explore other perspectives on the ethical challenges we have described. These perspectives could reveal important aspects of the reported challenges that lie beyond the personal experiences of the GHP leaders, and that might require additional considerations for ethics education, training and guidance. The perspectives of these additional stakeholders would expand our understanding of the broader scope of interests affected in these GHP experiences.

Our analysis has demonstrated that senior, experienced GHP leaders experience a wide range of challenges in their programs and that these challenges—which typically confront the GHP leaders with difficult decisions—often give rise to the experience of moral ambiguity, a situation in which the GHP leaders are unsure about the most ethical course of action. We believe our findings help to demonstrate that the ultimate value of global health ethics lies beyond the narrow regulatory mindset that dominates institutional and programmatic reasoning in global health. The skills, knowledge, and maturity required by GHP leaders and their teams to address the complex ethical challenges they face on a day-to-day basis will require more than just guidance documents and "compliance" with standardized procedures. It will require a different understanding and appreciation of the role and value of moral reasoning as part of developing effective ethical guidance and support for managing moral ambiguity in global health.

Competing Interests

DGA and ALG are employees of the Task Force for Global Health. None of the authors report any competing interests.

Contribution Statement

MG and JVL conducted the initial interviews. All authors made substantial contributions to the analysis and interpretation of the data, and to the drafting and revising of the manuscript. All authors have given approval for the final, published version of the work. JVL is the guarantor.

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What ethical challenges arise in global health programs?

A qualitative case study of global health program leaders' experiences.

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Abstract

Objectives: The study aimed to describe the ethical challenges global health program (GHP) leaders encounter in their day-to-day work and to understand how they address these ethical challenges, as an important first step toward improving the relevance and precision of ethical guidance for GHPs.

Design: We employed a qualitative case study approach using grounded theory data collection and analysis methods.

Setting: Global health programs (GHPs) based at a major global health program hub in Decatur, Georgia, USA, providing a wide range of health services to more than 150 countries globally

Participants: Leaders of all 15 GHPs in the program hub were invited to participate and 9 were available and consented to participate. Two senior leaders of the program hub also participated in the study.

Results: We identified 10 categories of ethical challenges encountered by GHP leaders: (1) Ethical misalignment between funders and implementing partners; (2) Budgets functioning as constraints on ethical decision-making; (3) The limited impact of programs on improving host country capacity; (4) Concerns about missed opportunities to benefit host country communities; (5) Shortcomings in current ethics guidance; (6) Issues in data governance, stewardship and management; (7) Navigating complex sociocultural contexts; (8) Photography in the context of global health programs; (9) Trustworthiness and reputational risks; and (10) Accountability for unintended consequences. The challenges often result in divided or conflicting loyalties for GHP leaders and uncertainty about what to do. We have characterized this form of uncertainty as 'moral ambiguity,' which we define as the inability to discern the best ethical way forward when there is tension or conflict among multiple stakeholder interests.

Conclusion: Our findings suggest that moral ambiguity is a common experience for GHP leaders and that current approaches to global health ethics fail to guide and support GHP leaders to recognize and address moral ambiguity and limit the distress it can cause. The experiences of GHP leaders offer important diagnostic insights for improving the way GHPs are imagined, financed, delivered, and evaluated.

Strengths and limitations of this study

- The qualitative case study approach provided access to rich accounts of the experiences of GHPs.
- 2. The opportunity to use the Task Force for Global Health as the sampling frame for the study allowed us to explore the experiences of a highly experienced group of leaders of large-scale GHPs.
- 3. The qualitative case study approach provides a taxonomy of ethical challenges framed and grounded in the experiences of the GHP leaders, rather than those of the investigators.
- 4. Despite the scope and reach of the TFGH GHPs, a broader sample would have allowed for greater confidence in the generalizability of the findings and a better basis for estimates of the prevalence of the ethical challenges in GHPs.
- 5. Our study did not engage in-country partners of the GHPs, or even GHP staff, to explore other perspectives on the ethical challenges we have described. These perspectives could reveal

important aspects of the reported challenges that lie beyond the personal experiences of the GHP leaders.

Introduction

Global health is fraught with complex ethical challenges. These challenges have become the focus of a growing body of scholarly literature and educational programming, and these contributions have helped to elevate the visibility of ethics in global health. But the field of global health ethics continues to be dominated by description and analysis of ethical problems, with much less attention paid to providing global health practitioners with effective guidance and support as they navigate these issues in their programs and projects.

Global health programs (GHPs) are the *de facto* providers of a wide range of health care services globally, including disease control and elimination, water and sanitation interventions, immunization and vitamin A distribution, to name just a few. The coordination and management of GHPs often involves a top-down approach to all aspects of programming, including staffing decisions, priority-setting, organizational structure, activity planning, and implementation. Notably, global health programs are funded, designed, and managed primarily in high-income countries (HICs), which can limit and undermine the input, authority, and power of affected populations. Despite their significant contributions, these 'imported' programs can inadvertently undermine the national health systems they aim to support [1-3].

Because of their considerable power over a wide range of programmatic and logistical decisions, GHP leaders—including program directors and others in senior leadership positions—have a unique ethical responsibility for the outcomes of their programs, both positive and negative. GHP leaders from HICs are often required to act as diplomats, consulting clinicians, and advisors to country health authorities and their implementing partners, while ensuring their programs are implemented on time, effectively, and within budget, according to the terms of their funding agreements. This constant balancing of the interests of stakeholders within the program against the interests of external partners and intended program beneficiaries pulls program directors in various and sometimes conflicting directions. And despite the inevitable ethical complexity of these situations, research has shown that program leaders and public health practitioners may "lack the experience, time, resources (including training), or even motivation to deliberately consider ethics in their daily work and often rely on professional experience or one's own personal moral foundation in negotiating challenging ethical issues." [4].

There is a significant gap in our understanding of the nature and scope of ethical issues GHP leaders encounter in their day-to-day work. And even less is known about how these ethical challenges are experienced and managed, and how they affect the GHP leaders themselves, their programs, and their many collaborating partners globally and in-country. Failure to recognize these issues, and to improve the necessary support and guidance for GHP leaders to navigate them effectively, is potentially detrimental for all GHP stakeholders. Understanding how GHP leaders interpret and address ethical challenges is an important first step toward improving the relevance and precision of ethical guidance for GHPs. And, given the growing momentum of calls for "country ownership" of global health programming [5]—which reflect a wide range of ethical considerations—greater attention to the experiences of GHP leaders might offer useful insights about obstacles to, and potential facilitators of, authentic country ownership.

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Methods To address this critical gap in knowledge, we employed a qualitative case study approach using grounded theory data collection and analysis methods to generate a clearer picture of the ethical challenges faced by GHP leaders. Our analysis aimed to produce a taxonomy of prominent ethical challenges and explore the ways in which respondents recognize and manage these challenges in their daily work. We conducted face-to-face interviews with nine program directors and two senior leaders at the Task Force for Global Health (TFGH) in Decatur, Georgia, USA (https://www.taskforce.org/); an international non-profit organization that serves as the secretariat or administrative hub for 16 global health coalitions, networks, and partnerships working to address a variety of large-scale health problems. The TFGH houses global health programs focused on disease eradication, immunization, health system strengthening, epidemiological and bioinformatics technical capacity development, and public health workforce development. This unique and highly concentrated collection of major global health programs represents exceptional scale and reach among GHPs (Task Force for Global Health, 2022). Collectively, the programs led by the TFGH GHP leaders work in more than 150 countries, represent investments of more than \$1B/year and the GHP leaders, collectively, have hundreds of years of program management experience. The TFGH provides national programs in low and middle-income countries (LMIC)s with administrative, financial, technical, and human resources. ALG and DGA lead the Focus Area on Compassion and Ethics (FACE) at TFGH.

The project began with a request from TFGH leadership for FACE, led by DGA and ALG, to conduct a review of the need for ethics education and support services among the TFGH's 15 GHPs. Because of their experience with ethics and stakeholder engagement in global health, MG and JVL were engaged by FACE through a contract between TFGH and Emory University to assist with interviews of the GHP leaders and analysis of the findings about the ethical challenges they encounter in their programs. GHP leaders were invited to participate in the interviews by the FACE team and informed that the aim was to help determine the need for ethics education and support for GHPs housed at the TFGH. Nine of the 15 GHP leaders were available to participate in the interviews, which were conducted between July and September 2019. Two members of the TFGH senior leadership were also available to be interviewed. Before participating in the interview, each participant provided verbal consent (which was recorded) and agreed for the interview to be recorded to ensure accuracy in the analysis.

The initial findings were presented to the TFGH GHP Directors (leaders) and TFGH Senior Leadership. During the discussion, the GHP directors emphasized the broader relevance of the interview findings for the global health community, and the TFGH leadership subsequently encouraged and approved a secondary analysis for publication (see Ethics Statement, below).

In keeping with grounded theory methods, interviews were structured to elicit interviewees' perspectives and experiences in their own words and framing. Interviews ranged in length from 35 to 100 minutes, were audio-recorded and transcribed verbatim using Otter AI, and cross-checked to ensure accuracy. The study used a constructivist grounded theory analytic approach [6]. Rather than beginning with a fixed, scripted "interview guide", interviews began by asking participants about key domains that we aimed to elicit insights for, from their unique perspectives. These initial domains included the GHP leaders' perceived need for ethics support, the types of support that might be relevant for their programs, the circumstances that gave rise to the perceived need for ethics support, and the GHP leaders' views of the implications of these circumstances for their programs, their teams and partners, and for themselves personally. As the participants shared their experiences relevant to each domain, we

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probed for clarification and prompted for additional detail and context, where necessary to clarify meaning and facilitate fair interpretation.

Data analysis was conducted between interviews, and any new insights identified during the analysis were explored in subsequent interviews. The analytic approach employed combined techniques of grounded theory and qualitative description [6-8]. Two main rationales informed our choice of method. First, grounded theory emphasizes the experiences of participants, the meaning of these experiences to participants, and their understanding of ethical challenges [9], as opposed to seeking data to test an investigator's hypothesis. Second, the grounded theory method aims to generate a working theory of the phenomenon in question. The goal, in this case, was to produce an explanatory account that combines rich description of the social processes and circumstances that give rise to the reported ethical issues and challenges, with an explanation of the nature of the ethical issues and challenges themselves.

Interview transcripts were coded using ATLAS.ti v. 8.4.5 [10] to identify key concepts, categories, and patterns [6,8,9,11]. A constant comparative approach was used to compare findings within and across interviews and among categories [6,11]. Techniques for ensuring analytic rigor and trustworthiness included comparison of coding between analysts, seeking alternative explanations for the data, and interrogating the coherence of interpretations through deliberations among the analysts [7]. These analytic approaches were discussed and carried out in regular, in-person meetings of the research team.

Ethics Statement

Following the authorization by TFGH leadership, a proposal for a secondary data analysis of the GHP leaders' interviews was submitted to the Emory University Institutional Review Board (IRB)—U.S. government Federal Wide Assurance #00005792—for review. The TFGH is an affiliate of Emory University. The IRB approved this secondary analysis (Study 00005823) on March 14, 2023 on the condition that the original transcripts for the internal review, and any data presented in publications, be de-identified. In the findings, below, we have presented representative quotes from the GHP leaders without attribution, in accordance with the condition of the IRB approval. And to reduce the likelihood of inadvertent identification of the GHP leaders we have been selective in the number and scope of the quotes we have presented to illustrate key findings from the interviews.

Results

Our analysis produced two main findings. First, we were able to identify and describe 10 categories of ethical challenges encountered by GHP leaders. Second, we found that these ethical challenges often leave GHP leaders uncertain about the most appropriate ethical response, a state that we have called "moral ambiguity."

Public Involvement

None

Ethical challenges faced by GHP Leaders

GHP leaders face a range of complex ethical challenges in their programs. The challenges described by our participants fall into 10 categories: (1) Ethical misalignment between funders, implementation partners, and host country partners; (2) Funding and budgets functioning as constraints on ethical decision-making; (3) Concerns about the limited impact of programs on improving host country capacity;

(4) Concerns about missed opportunities to benefit host country communities; (5) Ethical shortcomings in current guidance and practice conventions; (6) Issues in data governance, stewardship and management; (7) Challenges with navigating complex sociocultural contexts; (8) Ethical challenges related to photography in the context of global health programs; (9) Reputational risks and challenges related to maintaining the trustworthiness of the program; and (10) Accountability for unintended consequences. Table 1 presents each category with a quote to illustrate the nature and scope of the category. Ellipses in quotes indicate that some text has been removed to improve the flow and readability of the quote. These adjustments have not changed or distorted the participants' intended meaning.

Table 1: Examples of ethical challenges faced by TFGH program directors and senior leadership:

Category	Description	Example
1. Ethical misalignment	Situations in which the	"We don't have time to put deep thought into
between funders,	expectations of GHP funders—	things. And so we're aware that there are issue.
implementation, and host	either explicitly or implicitly—	we should be dealing with but, you know, we're
country partners	are at odds with GHP leader's	responding to donor demands and donor
, ,	intuitions about the ethically	deadlines and you just put the blinders on and
	appropriate course of action	surge ahead. So that's where we are."
2. Funding and budgets	Situations in which funders, or	"So, the funders are well past the era where
functioning as constraints	funding organizations' policies,	they lived with that, well, you're a charity and
on ethical decision-	limit or constrain the judgement	we just give you money and hope you will go do
making	of GHP leaders about the	good. That used to be the approach. The
3	appropriate utilization,	expectation out of the funders was quite
	allocation or distribution of	minimal. That has changed. Totally, totally
	funds	they benchmark our operation against any
		sophisticated modern business. They don't care
		if you're a charity or not, or if you're doing this
		for the good of people or making profit. It's
		basically you should operate this way, and
		that's the standard, so make it happen"
3. Concerns about the	Realizations, by the GHP leader,	"But for many of these other things we do, we
limited impact of	that their programs, as	have, we basically swoop in, do some good and
programs on improving	designed, financed and	out we go, and the country is no stronger than
host country capacity	delivered, are not contributing	where you started. And so, building country
, , ,	significantly or sufficiently to	capacity to interface with global health
	country health system capacity.	campaignsand interface effectively, be
		partners and not slow them down, but
		accelerate progress of it, broaden the reach of
		those campaigns. That's the way it ought to be.
		But it's not going to happen just because we ru
		a campaign out of Atlanta or New York or out o
		WHO, it's going to have to be intentional that
		we build that capacity."
4. Concerns about missed	Situations in which GHP leaders	"so we've talked about that dilemma, how
opportunities to benefit	identify potential opportunities	best to treat folks who have been missed in the
host country	to benefit country communities	routine program, when you have the
communities	that are precluded by current	opportunity to discover that they haven't been
	policies or practice conventions.	treated, and you're in contact with themif you
		give them a pill at that time, it's going to affect
		the result of the [program intervention]"

Ethical shortcomings in current guidance and practice conventions Issues in data Towardship	Situations in which there is no available ethical guidance for a given challenge, or that the available guidance is either out of date, or otherwise at odds with GHP leaders' intuitions. Situations in which GHP leaders	"Thirty years agothe assumption was that the Ministry of Health had this paternalistic responsibility to make decisions about public health interventions. Andit was the responsibility of the people in the community to participatethere wasn't a choiceThe world has moved on. But you know, we have not caught up with the change." "I'm thinking broadly about ethics, putting in the data system. There's really a let of stuff that
governance, stewardship and management	experience uncertainty about how to manage ethical issues related to the collection, storage, stewardship and use of data.	the data system. There's really a lot of stuff that goes into thatwith data usage, and privacy, how you store data, who owns the data."
7. Challenges with the navigation of complex sociocultural contexts	Situations in which expectations of hosts or other stakeholders associated with local cultural norms and practices are at odds with the ethical norms and practices of the program and/or funder.	"So, for example, I was invited somewhere to talk to about a program that we might be able to do. And the person, you know, made it very clear that he really wanted single malt So, one of the things that [we] have to be trained in is the Foreign Corrupt Practices Act. So how do we represent to donors thatthey are deeply linking themselves[to] liability that might be related to the Foreign Corrupt Practices Act?"
8. Ethical challenges related to photography in the context of GH programs	Situations in which the ethical appropriateness of taking, utilizing and distributing photos by the GHP for "official" uses, or by program staff for personal use, is called into question.	"There's an ethics question involved in taking photographs with people who are ill, or suffering or dying or dead. And, and so we're trying to make sure that we build those things into our global conference"
9. Reputational risks and challenges related to maintaining the trustworthiness of the program	Situations in which collaboration or cooperation with a particular individual or organization with a questionable ethical reputation might undermine the reputation of the GHP, by association.	"the problem is, how do we help out in this area [expanding access to drugs to support disease elimination efforts], get our foot in the door and get something moving without looking like we're just helping this [pharmaceutical company] build their market? I am going to come back to that, because that's a repeating theme all the time."
10. Accountability for unintended consequences	Situation in which GHP leaders experience concerns about potential unintended consequences of their actions or policies, especially when appropriate accountabilities are not in place.	"And that's where we have been, totally trusting that whoever is in charge of that program, that they know what they're doing, and can do it well. We have had no institutional processes or approaches that would have even allowed us to detect if they weren't doing it We haven't had any institutional processes that would detect that we are doing any particular abuses"

The problem of moral ambiguity

The challenges of weighing and balancing interests in the context of complex networks of partner relationships often result in divided or conflicting loyalties for GHP leaders. At the most practical level,

these challenges arise due to uncertainty about what to do—i.e., what course of action represents the most ethical approach in a given set of circumstances, as illustrated by the ethical challenges presented in Table 1—and about what consequences are likely to follow an action or decision. We have characterized this form of uncertainty as 'moral ambiguity,' which we define as the inability to discern the best ethical way forward when there is tension or conflict among multiple stakeholder interests, particularly when a decision or action could result in harm to some of them. Moral ambiguity arises from a recognition of the implications of one's decisions for the interests of others—an ethical awareness. We are conscious of the complex and often contentious debate about the meaning and inter-relationship between the terms "ethics" and "morality". We have used the term "ethics" throughout, since the initial programmatic review asked GHP leaders about their need for "ethics" support. And we have adopted the term "moral ambiguity" since it already has some currency in fields such as philosophy, organizational ethics, economics and law [12] to refer to situations in which various decision makers are uncertain about the most ethical course of action for a given decision.

Ethical awareness leads GHP leaders into a consistent process of deliberation—either alone in personal reflection, or with others—organized around four key questions: (1) What's right? Respondents want to do the right thing, but they are often unsure what is right in the specific circumstances. This is complicated by the fact that they need to consider what is "right" for a range of stakeholders, e.g., funders, implementation partners, intended beneficiaries, and for the field in which they work (e.g., NTD control and elimination); (2) Who do we serve? Who are the stakeholders? Why are they stakeholders? What stakeholder interests should be given priority in a given decision? Are there relationships or loyalties (e.g., with donors) that create specific obligations? Are those obligations potentially in tension or in conflict with obligations they might have to other stakeholders' interests?; (3) What do I need to do? What is required in order to do the right thing? What is the ethical goal? What new obligations will doing the right thing create? Which of these obligations fall to me, or to my program? Which fall to other individuals or organizations? What is required to fairly execute these obligations?; and (4) On what authority should the decision be made? Am I the person who should be making this decision or taking this action? Does the decision-making process provide sufficient legitimacy for this type of decision? Do I, or my program, have the necessary authority or moral standing to make the decision? Table 2 presents examples for each question.

Table 2: Key elements of moral ambiguity:

Questions	Quote
(1) What's right?	"The question is, do we keep treating with a single drug? Or do we wait until we have the two drugs, the two drugs probably won't be available [for more than a year]. So, in that interim, that child has potentially developed paralysis. Or in the meantime, they are excreting virus, maybe for, you know, years"
(2) Who do we serve?	" it is finding the balance between your core message and some of the practicalities of what you have to do to work with your donors. And for some of our members, they see it very much as an ethical issue"
(3) What do I need to do?	"So, what do you have to do? When do you decide that you're going to roll out a scabies program or whateveryou know, what are the factors that are involved in making those choices at a country level? And how, how do you have an appropriate level of dialogue around whether or not that's an appropriate use of limited country resources? So, you know,

	we, we tend to drive things and drive our discussions with countries around our own narrow perspectives."
(4) On what authority should the decision be made?	"But all of those activities really are about protecting the health of all populations, right? In a way that all people in the whole population get health. So inevitably that's tied to these very difficult hard questions about equity. We've seen that in some of our disease elimination programssome of the big challenges were about getting at people who are harder to reach whether it's just that they're a mobile population, or whether they're disenfranchised within the country. And we have to ask ourselves, if you keep saying, get to the final mile. Can you ignore these people? Even if the countries you work with want to? Is that going to be acceptable for us?"

The ethical awareness and moral ambiguity described above create a significant burden for GHP leaders, who must routinely manage these experiences as part of their day-to-day program management.

"I haven't mastered this, many people will tell you, I have not mastered this... But we're in this together, nobody's got it figured out."

"I write to [ethics colleague], just kind of as things come up, and my gut says we should do this or this, but let me see what [ethics colleague] has to say. And [s/he] takes it to the next level of analyzing it. I see the value in that. And I don't know if other programs do that."

The GHP leaders recognized that moral ambiguity is a common source of anxiety and can even have a corrosive effect on the motivation and well-being of whole programs.

"Why are we feeling uncomfortable? Well, we were doing experiments, clinical trials, and then basically, over a period of half a dozen years, we have started treating millions of people, and not really thinking about where this is going or, what are the negatives? What are the downsides to this? Nobody really assesses that."

"You're rolling out, on a large scale, an experiment where we don't know all of the variables. It's just that that seems to me to be extraordinarily risky. And as a community, we're making decisions for people who don't yet have enough information to make that decision for themselves. It just, that one gives me the shivers."

Some participants believed that the core questions of moral ambiguity should receive greater attention in global health program management. For example,

"Wouldn't it be nice to have somebody help us do an ethical analysis? There might be a funder tomorrow, where I think where we could really do some good with that funding, and there might be some issues that are sort of optics issues, but there might be other real issues that would be nice to have somebody help us think through those things."

Discussion

Our findings suggest that moral ambiguity is a common experience for GHP leaders and that current approaches to global health ethics fail to provide the guidance and support that GHP leaders and practitioners need in their day-to-day decision-making to recognize and address moral ambiguity and limit the distress it can cause. Many factors may serve to inure them to the inevitability of moral ambiguity in their work and perhaps even to a degree of tolerance for some level of moral distress. In

addition to the relatively low status of ethics in global health education, our findings suggest five possible explanations for the persistence of moral ambiguity in global health, each of which presents some possible targets for policy and/or practice improvement.

Familiarity: moral ambiguity arises so frequently in global health programs that GHP leaders and program teams become inured to the experience.

Tolerance: because moral ambiguity is common, it is implicitly viewed as an inherent feature of global health programs. And because it is rarely explicitly identified or addressed, it is tolerated as an inevitable aspect of the work.

Convention: Policies, rules, and regulations that comprise the current ethics paradigm emphasize abstract principles, institutional accountabilities, and technical aspects of program implementation, which are inadequate to address the relational challenges, uncertainties, and irreconcilable stakeholder interests that give rise to moral ambiguity.

Governing Narratives: Experiences of moral ambiguity are negated, even overshadowed, by celebratory narratives of 'success' that obscure more balanced critical reflections about the global health enterprise, a point made emphatically by Richard Horton in a Lancet editorial "The false narrative of 'tremendous progress'" [13].

Fear or discomfort: Acknowledging moral ambiguity may amount to "scratching the surface" of the full depth of ethical complexity in global health, which can contribute to moral distress and the experience of threat to one's identity or the identity of the GHP itself.

The ethical challenges faced by GHP leaders, the nature of moral ambiguity itself, and even the factors that perpetuate experiences of moral ambiguity confront GHP leaders with highly demanding challenges in moral reasoning—i.e., "...how we recognize moral considerations and cope with conflicts among them and about how they move us to act..." [14]. Moral reasoning is complex and multi-faceted, with important empirical, psychological, and practical dimensions that must be considered when deciding an appropriate course of action. Current ethics approaches and training fail to incorporate or enable the sophistication in moral reasoning that is required to navigate moral ambiguity. Most global health practitioners—and practitioners in other fields, such as complex humanitarian interventions—rarely, if ever, receive the depth and rigor in their ethics education, training and guidance to support complex ethical decision-making that they receive in statistics and program management [15, 16]. As a result, they are ill-prepared to navigate moral ambiguity, which—as our findings indicate—is a common and often perplexing experience for those working in GHPs.

Improved training and education in global health ethics could help GHP professionals at all levels to prepare for the kinds of challenges described by GHP leaders and provide them with language, concepts, theories, rationales and practical skills to help them navigate these challenges as they arise. The challenges described above also offer opportunities for empirical studies to explore the implications of various decisions and strategies, which could help to build a knowledge base to complement theoretical perspectives in ethics. There is already a rich empirical literature in research ethics [17] and even calls for an 'implementation science' for research ethics [18]. And in related fields, such as strategic management and decision science, empirical research is understood to be indispensable for improving policy and practice to support effective decision-making. Empirical findings about the implications of challenging decisions are the bread-and-butter of case-based learning in business and law schools. Given the unique stakes involved in global health programming—including profound questions about how to

decolonize global health [19]—the discounting of the importance of complex ethical decision-making is a significant shortcoming in global health training and practice.

But the challenges faced by GHP leaders go far beyond their individual skills in moral reasoning and decision-making. Deep problems exist in the way global health and global development programs are designed, funded and implemented. We heard repeatedly from GHP leaders that they had neither the time nor the necessary support and guidance to navigate their ethical challenges effectively. These deficits in time and support limit GHP leaders' opportunities to engage in productive discussions and deliberations with relevant stakeholders to gain a better understanding of how various programmatic decisions can result in trade-offs for stakeholders' interests. Stakeholder engagement holds significant potential to improve ethical decision-making in GHP and potentially reduce the experience of moral ambiguity for GHP leaders. But to realize this potential, funders and donors must exercise their unique power and opportunity to elevate the practice in the programs they fund.

What is needed is a re-framing. Ethics is still viewed by many as a form of abstract, academic (in the pejorative sense), philosophic theorizing, conducted naively by ethics practitioners who are remote from the kinds of problems described by the GHP program leaders. There is still a kernel of truth in this depiction, despite many successful efforts to integrate ethics more effectively into the design, management and evaluation of GHPs [20-23]. Funders and donors have unique power and opportunity to elevate the status of ethical decision-making in the GHPs they support, by testing new training and consultation strategies to improve the forecasting, diagnosis, analysis and management of ethical challenges in GHPs. And greater emphasis could be placed on evaluating decisions and proposed 'solutions' to ethical challenges to gain a better understanding of the value they create and where improvement is needed. In strategic management, an organization's awareness of the impact of its decisions on stakeholders is viewed as an essential starting place for innovation to improve organizational effectiveness [24]. Global health needs to follow suit.

The moral ambiguity reported by the GHP leaders—all of whom are deeply experienced and highly skilled managers—should be heeded and welcomed for its diagnostic value in illuminating some of these neglected aspects of the global health enterprise, which we seem all too willing to tolerate. The capabilities necessary to deal with these challenges effectively are too readily dismissed as "soft skills" or luxuries to be developed and prioritized only once the 'more important' technical aspects of global health programs have been attended to. This discounting is mirrored—or established—in global health education in universities. If moral reasoning is a necessary complex skill for GHP leaders and their teams, perhaps more sober reflection is required on whether the current presumptions about course requirements, pedagogical strategies, and faculty experience and capacity in ethics are fit for the task. If moral reasoning is as critical for the effective management of GHPs as the program leaders' responses suggest, then perhaps it should be weighed differently against the probabilistic and statistical reasoning that dominates the global health academy. Deans of schools of public health—where most global health programs reside—might look at the current ratios of faculty in biostatistics to faculty in ethics to get a baseline estimate of the scale of the disparity.

One of the issues in our findings that deserves additional investigation is the corrosive power of moral ambiguity in global health programs. Although our study was not designed as a deep investigation into the psychological impact of moral ambiguity for GHP leaders, it was clear during our interviews that some form of distress was a common consequence of the kinds of moral challenges they face in their work. GHP leaders also expressed frustration that the structure of their institutions, and the current design and governance of global health programs, often does not allow them the time or personal support they need to assemble a more thorough representation of stakeholder interests around a given

challenge, or adequate time for the deliberation among stakeholders to achieve consensus about the best way to address the challenge. Once again, the distress of GHP leaders may serve as an important symptom of the status quo in global health programming, and of the limitations of current global health ethics approaches, in addition to a legitimate management challenge in its own right.

While our study focused on GHP leaders in a HIC setting, it is critically important that our analysis is not viewed as privileging their challenges over the challenges faced by their partners in LMICs or the very populations they aim to serve with their programs. Our intention is quite the opposite. The insights offered by the GHP leaders in our sample provide a vivid image of the ethical complexity of the current status quo in global health programming. They also offer some diagnostic value in terms of aspects that require more explicit examination as the field of global health evolves to redesign the way programs and campaigns are imagined, financed, delivered, and evaluated. As Orbinsky states, "ethics must be central to reframing and reformulating our choices and actions" in the pursuit of a global health that avoids reproducing and reinforcing inequities and injustice [25]. Although ethical challenges and moral ambiguity are inevitable, regardless of how programs are designed and delivered in the future, it seems reasonable to expect that many of the tensions reported by GHP leaders could be reduced or resolved as we make progress on the necessary transition to more authentic ownership of these programs by countries [5].

The study has four important limitations. First, the aim of the initial data collection was to determine the educational, training, guidance and support needs of TFGH GHPs related to ethics. Although the GHP leaders provided a rich set of examples of the ethical challenges that arose in their work as context for their ethics support needs, it is reasonable to assume that greater detail and depth of analysis could have been possible had the initial focus of the interviews been on the nature of the ethical challenges themselves.

Second, because the study arose from an internal review of program needs at the TFGH, the development of a broader sampling logic for the analysis presented here was not part of the initial data collection strategy. The effect of this limitation is analogous to the implications of a convenience sample, which concedes imperfect representation of the phenomenon under investigation. Given the scope, breadth, geographic reach and complexity of funding and collaborative partnerships represented in the TFGH GHP portfolio, we believe that this limitation does not undermine the unique value of the insights presented here, as a window into the ethical complexity of GHPs.

In addition to questions about the representativeness of the types of challenges described by the GHPs, a third limitation of our study is that we are unable to estimate the prevalence of these challenges or their distribution among active GHPs. Although our study was not designed to provide insights about the prevalence of ethical challenges in GHPs, one potential value of our analysis is that it may provide an empirically grounded taxonomy of ethical challenges that could be examined for representativeness in further studies of GHPs.

Finally, as a result of our fixed sample, our study did not engage in-country partners of the GHPs, or even GHP staff, to explore other perspectives on the ethical challenges we have described. These perspectives could reveal important aspects of the reported challenges that lie beyond the personal experiences of the GHP leaders, and that might require additional considerations for ethics education, training and guidance. The perspectives of these additional stakeholders would expand our understanding of the broader scope of interests affected in these GHP experiences.

data mining, Al training, and similar technologies

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Conclusions

Our analysis has demonstrated that senior, experienced GHP leaders experience a wide range of challenges in their programs and that these challenges—which typically confront the GHP leaders with difficult decisions—often give rise to the experience of moral ambiguity, a situation in which the GHP leaders are unsure about the most ethical course of action. We believe our findings help to demonstrate that the ultimate value of global health ethics lies beyond the narrow regulatory mindset that dominates institutional and programmatic reasoning in global health. The skills, knowledge, and maturity required by GHP leaders and their teams to address the complex ethical challenges they face on a day-to-day basis will require more than just guidance documents and "compliance" with standardized procedures. It will require a different understanding and appreciation of the role and value of moral reasoning as part of developing effective ethical guidance and support for managing moral ambiguity in global health.

Competing Interests

DGA and ALG lead the Focus Area on Compassion and Ethics (FACE) at TFGH. MG and JVL were engaged by FACE through a contract between TFGH and Emory University to assist with interviews of the GHP leaders and analysis of the findings about the ethical challenges they encounter in their programs.

Contributorship Statement

MG and JVL conducted the initial interviews. All authors made substantial contributions to the analysis and interpretation of the data, and to the drafting and revising of the manuscript. All authors have given approval for the final, published version of the work. JVL is the guarantor.

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