RESEARCH ARTICLE

Managing the International Humanitarian and Development Health Workforce: a review of experiences and needs

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Abstract

The overseas development and humanitarian assistance provided by high income nations includes considerable investment directed at improving health in low and middle income countries. Governments, non-government organisations and consulting companies employ international health staff in low and middle income countries to deliver health interventions, manage programs and provide technical assistance. There are no reviews of evidence to guide the management, support and training of these staff, especially in relation to capacity building. We undertook a narrative synthesis of research to examine the needs and experiences of international health personnel engaged in development and humanitarian work. We found that altruism and a desire for professional and personal development motivated most international workers, however their roles are not always clear, affecting the delivery of quality care and services. Staff supply and skill-mix, short contracts, remuneration, leadership and workload were highlighted as issues. A lack of preparedness was also noted and staff identified strategies for coping in the field. Current efforts towards the professionalisation of health development and humanitarian staff may provide mechanisms to better support the workforce to respond and be accountable to the needs of countries. A performance management framework may need to be developed requiring research and validation.

Abbreviations: MDG: Millenium Development Goals; NGO – Non-Government Organisation.

Key words: developing countries; international workforce; professional standards; performance management; AID effectiveness.

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Background

One of our current global health challenges is to meet the Millennium Development Goals (MDGs) that focus on improving child and maternal health outcomes and combating HIV/AIDS, malaria and other diseases by 2015. [1] International aid has been crucial in assisting many countries to deliver health interventions, manage programs and provide technical assistance. As a result of significant investments in aid around the Asia and Pacific regions, program effectiveness and funding approaches are currently on the agenda of agencies and donors, keen to see that their investments are coordinated, transparent and targeted towards progressing the MDGs. [2]

Human resources account for a major share of aid budget costs and therefore warrant special attention from donors and international non-governmental organisations (NGOs) so that resources can be used efficiently. Available figures show that forty-six per cent of the Australian government's international development (known as AusAID) budget of 1.8 Billion AUS dollars in 2003 was spent on human resources technical assistance across all program areas where Australian experts undertake tasks where there are skill shortages. [3] In order to attract and retain experienced field professionals to work in often insecure contexts, international NGOs provide premium salaries alongside those of security staff which draw a significant share of agency budgets. [4]

International health staff employed on aid programs may reside for long or short-term periods in developing countries to perform clinical, technical, management or health promotion roles and function in a voluntary, salaried or contract capacity. Staff are generally engaged in capacity building and transferring skills and knowledge to local staff, building networks and partnerships, providing leadership and assisting with infrastructure development [5] such as repairing health clinics in rehabilitation projects or building facilities as part of long-term development missions. Large numbers of foreign nationals may be posted overseas for the duration of international development or humanitarian missions. For example in 2011, USAID staff totalled 9,475 of which more than 70% were United States nationals overseas. [6]

International health personnel are drawn from a variety of professional and education backgrounds, undertake a range of service functions and are selected and contracted through numerous mechanisms and by various employers. We focus on international health staff for the purpose of this paper. We define international health staff as professionals formally contracted to undertake specific health-related tasks that may be part of a government, NGO or donor program. We will not include students or holiday visitors. International staff involved in humanitarian missions are typically engaged in short-term relief rehabilitation and risk reduction activities in the immediate aftermath of a

disaster or emergency. [7] On the other hand, development personnel are involved in longer-term activities designed to improve the level of a country's health system and associated infrastructure.

Figure 1 provides an outline of diverse staff characteristics. For example, government international aid agencies including AusAID and USAID not only have their own programs and technical advisors in countries but contribute to the remuneration of other Australian and American health staff working for accredited organisations through grants to NGOs; [8,9] funding to health professional organisations; [10,11] and, joint operations with the Defence Force. [12,13] Government aid also funds staff costs through consultancies and tenders won by donor country and international companies. International NGO staff salaries are funded through public donations and private benefactors, while private industry employs other personnel.

The need for a synthesis of evidence

Despite considerable donor investment in building the human resource capacity of their organisations, evaluations of international staff management have called for efforts to be focused on improving workforce efficiency. [3,4] There is no systematic review that synthesises current research knowledge to indicate how international health workforce needs and performance issues can be best addressed.

Figure 1: Humanitariun and development personnel characteristics

Cadre

Supervision

Medical/nursing/allied health personnel (doctor, surgeon, nurse, midwife, dentist, physiotherapist, psychologist)

Scientific technical staff (microscopists, entomologist)

Promotive/preventive staff (health promotion officer, peer health educator, counsellor)

Management staff (program co-ordinator, field worker)

Logistic/support staff (communications officer, transport officer, security co-ordinator)

Characteristics



Service function	Form of engagement
 Specialist Generalist Curative Promotive Management Logistics/ support 	Expatriate Regular visits One off mission

Education/ Training	
University Technical	
In house agency training	
In-country training	
Training in donor country	

In-country Country of origin

Employee Tender Self-selected

Selection

Ministry of Health NGO, local international

Employer

Faith-based organisation Military

Professional organisation **Business** Self-employed Salaried

Form of contract

Contract short/longterm consultancy

Voluntary

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This paper aims to identify the needs and experiences of international health workers in development and humanitarian settings. Specifically:

- How do health staff view themselves and the roles they perform?
- What strategies do staff perceive will improve motivation and contribute to their effective management, training and support?
- What barriers and constraints affect performance?

Method

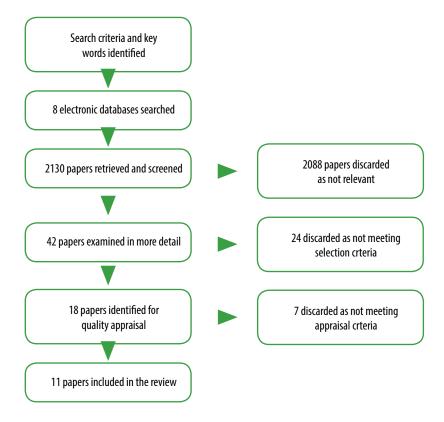
An initial scoping exercise revealed that relevant research literature comprised quantitative and qualitative study designs disallowing the pooling of research results. No randomised control studies were identified, therefore we decided that observation studies would be considered eligible for inclusion alongside quasi experimental and non-experimental descriptive studies. Based on this, a narrative synthesis methodology was selected to analyse the research papers and was conducted as per current guidelines. [15,16]

Search protocol

A systematic search of the literature published between 2000 and 2011 was undertaken of eight bibliographic databases (MEDLINE, CINAHL, MEDLINE, Web of Science, PubMed, Scopus, and ProQuest Health & Medical PsycINFO [OVID]). Medline MeSH subject headings were used: 'Health Manpower' or 'Foreign Professional Personnel' or 'Health Personnel' or 'Voluntary Health Agencies' and 'Relief Work' or 'Altruism' and 'Delivery of Health Care' and 'Developing Countries', or 'International Cooperation' and augmented by 'technical assistance'.

Retrieved records were screened using an inclusion/ exclusion criterion for their focus on development and humanitarian health workers and duplicates removed. Discursive papers and those older than ten years were removed. The PRISMA guidelines [17] were used to report process (Figure 2).

Figure 2



Appraisal of quality

Eighteen papers (11 qualitative, six quantitative and one mixed methods) were appraised to establish if the research aim and the methodology were aligned and to evaluate the recruitment, settings, data analysis, ethics, findings and contribution to knowledge. The 11 qualitative papers were assessed for quality using the CASP tool for qualitative research, [18] the six non-experimental studies and the mixed methods paper were assessed using the scoring system designed by Pluye et al. [19] Seven papers were discarded as quality was deemed low including a lack of ethical processes.

Analysis

Using narrative synthesis we analysed the results section of the 11 papers using a framework based upon the Human Resources for Health Action Framework [20] to identify the experiences of development and humanitarian workers. This framework was adapted according to emergent themes (see Table 3). A thematic analysis was conducted by the first author using tables and discussed with the second author. The relationships within and between studies was explored and coded under each theme. A concept map was built to plot patterns and relationships across themes and sub themes.

Findings

Of the 11 papers, two focused on health staff in development settings, [21,22] one on humanitarian and development health personnel, [23] and eight on staff engaged in health work in humanitarian settings. [24-31] These papers are summarised at Table 1. Eight themes emerged and are outlined at Table 2. These themes are discussed below according to humanitarian or development context.

Challenges of humanitarian and development workers

Several papers described challenges relating to humanitarian work, including society's indifference to it and problems related to power, dependence and aid effectiveness. Participants commented on the need for aid efforts to be consolidated for impact. [26] Staff felt that, despite years of effort, little gain had been made with global injustice and inequity still endemic. [28] Workers regarded this as the result of high income country public ignorance of the challenges faced by poorer nations reflected by the hostile attitudes often shown towards humanitarian workers in their home countries. [28]

Participants described the effect that their employer's organisational culture had on their ability to undertake their work. One study described aid culture as 'self-congratulatory', preventing reflection and learning from unsuccessful efforts. [28] Organisational policy and regulations were described as problematic, creating boundaries between international and local staff and in one case affecting patient evacuation. [25] Incompetent leadership was challenging, [29] affecting agency functionality [26] and hindering teamwork. [25] Teamwork was critical [26] with collaboration being ultimately dependent on developing 'trust relationships' requiring communication skills and time to develop. [25] Causes of poor teamwork included burn out [28] and poor role definition. [29]

Development workers reported feeling overwhelmed by the limited nature of their contribution: [23] that relates to humanitarian workers' expressed need to unify efforts in the field. Workers involved in development work also felt hostility from Australians when they returned home from working overseas. [21]

Having the right identity and personal characteristics

Identity and personal issues relating to being a moral and altruistic person, a health professional and a humanitarian worker were a recurrent theme through all the studies. Hunt's research [23] found that a sense of professional identity enabled staff to deal with ethical issues. Participants were concerned that their colonial heritage would affect how local people perceived them. However in response participants felt it necessary to develop a clear notion of themselves as humanitarian workers in order to define their work and communicate their altruistic role to others. [23] Participants in Bjerneld's study looked forward to being part of the humanitarian community perceiving their personal characteristics as either fully formed or 'in development' and seeking assignments suited to these. [26]

Role confusion

Participants in Hunt's study described the need to understand the local culture and context before establishing their humanitarian role. In addition confusion surrounding one's role was seen as stressful and was amplified by poor training and supervision. [25] Participants felt forced into humanitarian roles that were not their own, ranging from organising the burial of children to performing clinical procedures without adequate training or equipment. [23] Hunt's 2009 study highlighted the importance of leadership, clear decision-making structures and role definition, [25]

Table 1. Summary of studies included

REFERENCE	CONTEXT / AGENCY TYPE AND PROGRAM STAFF	METHOD/DATA GATHERING	SAMPLE	AIM/S/OBJECTIVE/ PURPOSE
(Aitken 2009)	Humanitarian relief /Australian Government Overseas Disaster Assistance Plan medical disaster team deployed to Aceh, Maldives and Sri Lanka.	Descriptive survey design.	59 Australian post mission disaster medical assistance teams members (DMAT) medical (24), nursing (11), logistics (6), allied health (3) and command (3) roles as well as mixed roles consisting of medical/command (2), medical/logistics (1), nursing command (1) and nursing logistics (1).	To evaluate Australian DMAT experience in relation to health and safety aspect of actual deployment.
(Bjerneld 2006)	Humanitarian relief /potential health staff no specific agency interviews.	Descriptive qualitative using content analysis of focus group.	Scandinavian health professional volunteers (10 nurses, 9 doctors) attending a 2-months International Health course at Uppsala University, no previous experience of humanitarian work abroad.	To explore motivations, concerns, and expectations.
(Dahlgren 2009)	Humanitarian relief / Red Cross, International NGO including health team.	Descriptive survey design using a self-administered anonymous questionnaire.	1250 International Committee of the Red Cross expatriates who underwent debriefing during the study period having mission greater than 1 month included delegates (40%), administrative personnel (20%, e.g., secretaries, logistics), and different specialists like medical staff and engineers (40%).	To assess self-reported health risk and risk-taking behaviour of humanitarian expatriates.
(DeZee 2006)	Humanitarian relief / US Army medical team	Descriptive survey-based needs assessment using the internet	89 of 186 US Army internal medicine residency graduates	To examine perceptions of preparedness.
(Hunt 2008)	Humanitarian relief and development context / various NGOs with health programs	Phenomenology: using semistructured interviews.	10 participants six nurses, one physical therapist, one physician and one social worker. One participant was the Executive Director of an NGO	To determine how health workers experience ethics in the course of humanitarian assistance and development work.
(Hunt 2009)	Humanitarian relief/ various NGOs with health programs.	Interpretive Description methodology using semi- structured individual interviews.	15 Canadian healthcare professionals (nine doctors, five nurses, and one midwife) with more than three months experience in humanitarian work; and (2) three individuals who have experience as human resource or field coordination officers for humanitarian, NGOs.	To explore the moral experience of healthcare professionals during humanitarian relief work.
(McCormack 2009)	Humanitarian relief / various NGOs and consultancy.	Phenomenology using semi- structured interview.	Single individual who spent more than 35 years in field as a senior manager and consultant.	To explore the altruistic identity and experiences.
(Melby 2008)	Development expatriate setting, Eastern Asia / University nursing faculty.	Phenomenology using semi- structured interviews.	Eight expatriate nurse educators 7 female 1 male.	To describe the lived experience of English-speaking Western nurse educators.
(Rowley 2008)	Humanitarian relief / secular and faith- based international NGOs.	Surveillance study of fieldbased.	18 humanitarian organisations reported on any death, medical evacuation, or hospitalization of any national or expatriate staff for any cause, in any field location during the study period.	To describe the distribution of all-cause and cause-specific mortality and morbidity of humanitarian workers with regard to possible risk factors.
(Selby 2009)	Development setting / faith-based Australian NGOs with health programs.	Descriptive survey based study and descriptive qualitative using semi-structured interviews.	15 participants from Australian interdenom- inational Christian mission organisations: 8 administrators or involved in support roles such as cultural training and childcare, 4 were health professionals, and 3 teachers.	To explore loss and grief issues for adult Australian missionary cross-cultural aid workers during their re-entry adjustment.
(Tuhkanen 2008)	Humanitarian relief, Afghanistan/ Red Cross medical team.	Ethnography using interviews and focus groups discussions.	7 Afghan Red Cross healthcare professionals and 3 expatriates who had facilitated Emergency Mobile Unit training.	To describe Emergency Mobile Unit team members' and healthcare professionals' perception of a disaster preparedness and response project and to explore the elements of participation that could support its sustainability.

Table 2. Themes related to the experiences and needs of humanitarian and development health workers identified in papers in the narrative synthesis

					HUMAN	RESOURCES	FOR HEALTH N	IANAGEMENT IS	SSUES				
REFERENCE	AID WORK CHALLENGES	IDENTITY	ROLES	MOTIVATION	TEAM WORK PEER SUPPORT	WORKLOAD	STAFF SUPPLY	WAGES, INCENTIVES AND EMPLOYMENT CONDITIONS	EXPERIENCE: PRE AND POST ASSIGNMENT PHASES	ETHICAL DILEMMAS	HEALTH AND PERSONAL ISSUES	RELATIONSHIPS WITH LOCAL PEOPLE STAFF	LOCAL CULTURE
(Aitken 2009)	✓				1	1		✓	1		✓		
(Bjerneld 2006)	1	✓	✓	1	1			✓	1		1		
(Dahlgren 2009)											1		
(DeZee 2006)									✓				
(Hunt 2008)	✓	✓	✓			✓				✓		✓	✓
(Hunt 2009)	1		✓	1	1				1	1	1	✓	✓
(McCormacl 2009)	k 🗸	✓		1	1		1		1		1		
(Melby 2008)			✓			✓			1		1		✓
(Rowley 2008)											1		
(Selby 2009)	1								1		1		
(Tuhkanen 2008)					1							✓	✓

while Bjerneld's research study demonstrated the need for staff to understand how their roles related to other fieldwork. [26]

Development workers said that they were sometimes unable to gauge local expectations in order to define their role but that acting as a role model to local staff was regarded as a valuable contribution. [22]

Motivation to do humanitarian work

Related to roles were factors linked to staff motivation. Some reported initially wanting to play a 'hero role' [26] others discussed aspirations to 'save the world' [25] that were criticised as unhelpful contrasts between international health professionals as rescuers and beneficiaries as passive recipients. [25] Humanitarian workers were described as driven by adrenaline and their regular field missions increased the likelihood of mental health issues that impeded team performance. [28] For most, the need for fame, bravery and glory, gleaned through the media, was soon replaced by a desire to make a contribution to society linked to participants' understandings of their privileged position and dissatisfaction with their current work in their home countries. [26] Others were motivated by a desire

for personal development and forming new relationships, which were intensely satisfying, [28] and would help them learn more about themselves. [25] Related to this was the desire to test themselves in new situations. [26] Participants noted that motivations must be realistic, as idealised motivations lead to disillusionment or anxiety. [25]

Being managed as human resources

Human resource management issues included staff supply, workload, remuneration incentives and employment conditions, the organisational culture of the aid agency and team work. High staff turnover rates among humanitarian workers were reportedly due to short-term contracts and the limited timeframe of aid projects. This was seen as potentially damaging to individuals as they were not able to achieve stability contrasting with the compassionate work that staff were paid to undertake. [28] Skill-mix was not always optimal, impacting upon humanitarian team performance. [28] Remuneration concerned humanitarian aid nurses who believed that their NGO salary was too low. [26] A heavy workload affected development workers' ability to reflect and improve on practice [23] with a trip home being the only respite available. [22]

Skills, experience and needs in pre and post assignment phases

Preparation

Humanitarian study participants reflected upon their level of preparedness for humanitarian and development work often expressing self-doubt concerning their ability to contribute and desire for a high level of preparedness beyond formal education and training. [25] For example, most participants in De Zee's study did not feel prepared for medical humanitarian assistance and requested additional training on the clinical management of tropical diseases, sanitation and how to interact with civilian humanitarian and military civil affairs workers. [27] Some felt that not knowing what to expect was a hardship [29] while others anticipated learning a great deal. [26] Participants identified personal qualities required for field-work including confidence in their professional abilities and need for acceptance of individual limitations. [26]

Post assignment

Humanitarian workers expressed fear that recurrent periods away would result in the loss of their cultural identity. [26] This stemmed from the fact that family and friends could not appreciate the profound experiences or were unable to listen. [28] These difficulties were said to result in stress, grief and loss. Returning staff also felt patronised by friends. [28] Development staff in Selby's study felt that the community regarded their assignments as an adventure and expected them to adjust, or that their re-entry was not especially significant and hence there was little acknowledgement of support needs. [21] Development workers described feelings of alienation on return home while others felt isolated and without networks. [21] They felt that friends and family did not acknowledge that relationships had changed during their absence or understand the strength of relationships formed overseas. [21]

Strategies were described by humanitarian workers to cope with rejection or alienation including seeking support from other aid personnel, or by returning to the field to regain purpose and focus. [28] Others felt aid organisations should recognise and appreciate the contribution of international staff so that they would feel valued and build self-esteem. [26] For development workers rest and relaxation upon return was critical. [21]

Facing ethical dilemmas in the field

Dilemmas were reported by humanitarian workers around clinical situations where health workers' decisions concerning patient treatment were affected by priority issues, public health considerations, poor prognoses or

the lack of medications or money to purchase them. [23, 25] Participants felt unprepared for these decisions and described feelings of guilt. Other dilemmas related to observing incompetent and inappropriate care by local health professionals and situations where international workers' recommendations for improvements were rebuffed. Clinicians reported undertaking tasks for which they themselves were not trained or resisting pressure to carry out work beyond their remit and feeling guilty as a result [23] They struggled with differences in standards of care and how to apply global standards, or those responsive to the local context with the best patient outcomes in mind. [23] Corruption and distrust were problems participants could not easily resolve, along with working under the vestiges of colonialism and/or under dictatorships that compromised care. Participants responded by lowering expectations or striving to do their best. [25] Development workers spoke of difficulties they had putting mechanisms in place to advance practice towards global standards. [22]

Meeting their own health and personal issues

During deployment in a humanitarian setting, the majority of participants in Aiken's study felt that their basic health needs were adequately met. [29] Malaria affected one-in-ten workers returning from sub-Saharan Africa and one-in-ten expatriates reported having injuries during their mission. [30] Another study identified that the risk of violencerelated deaths, medical evacuations, and hospitalisations was six per 10,000 humanitarian worker person-years. [31] It is difficult to contextualise these figures as the only similar study describing violence against healthcare workers across 16 countries does not seek to establish trends. [32] However, by way of comparison the World Health Organisation report into violence and health states that, in 2000, the rate of violent death in low to middleincome countries was 32.1 per 100,000 population, more than twice the rate in highincome countries (14.4 per 100 000), [33] but half the reported risk of humanitarian workers demonstrating their high exposure to risk of violence-related deaths, medical evacuations and hospitalisations.

Lifestyle and risk-taking behaviours among humanitarian workers were reported including increased alcohol use and sex with someone other than their regular partner. Two-thirds reported condom use, with one-fifth using condoms 'only sometimes', or never. [30] Stress, exhaustion and sleeping problems affected international health staff. [29,30] Participants in the studies regarded psychological distress as significant and related this to witnessing human suffering, death and destruction. [29] Distress was also said to be

related to participant's feelings of self-doubt and questions concerning whether their work was making a difference and guilt associated with poor or ineffective humanitarian work. [28]

Personal coping strategies to deal with difficult and stressful situations were described by humanitarian workers including self-monitoring of physical responses to work demands, reflecting on events and accepting situations that are beyond individual control. [28] Building relationships with colleagues was regarded as critical for support and advice. [28,30] Regression analysis in Dahlgren's study revealed that expatriates who reported having had someone to talk to during the mission 28% (RR = 0.72, 95% CI 0.51–1.03) were less likely to report exhaustion. [30]

Living in the local culture and having relationships with local people/staff

Humanitarian staff reported feelings of solidarity with local people and a shared sense of humanity which was necessary to progress aid work. [25] They were aware of the power wielded by aid workers and the need to include local voices. However, organisation policy sometimes reinforced the differences between local and international staff by segregating living quarters and security protocols. [25] Different levels of trust affected the working relationships between local and international staff.

Development workers found living in a different cultural environment challenging and recognised that their values were not always those of the local population. [23] Learning another language was difficult [22] but learning the local culture was described as critical to addressing one's own ethnocentrism and developing working relationships, strategies and defining roles. [22] Other humanitarian and development personnel reported that they had been confronted by different concepts of health including practices that may be harmful. [23, 25] Development staff saw the need to adjust to culture and make compromises on their behalf [22] while humanitarian workers felt that it was important to work towards changing practices, for example, discrimination or violence towards women. [25]

Discussion

Our narrative synthesis found that the ways in which international health development and humanitarian workers view themselves and the factors that motivate them to undertake this employment are related to the roles they play or seek to achieve. Altruism and a desire for professional and personal development reportedly inspired most international workers. Poorly defined roles affected

the delivery of quality care and services. Staff supply and skill-mix, short contracts, remuneration, leadership and workload were highlighted as issues affecting teamwork and performance. A lack of preparedness and debriefing upon return were outlined. Despite these challenges participants described strategies for coping in the field and improving practice.

Hero roles mentioned in other studies appear to be motivated by notions of rescuing people in crisis and may relate to the missionary label previously used to describe the actions of faith-based workers and now applied to aid personnel to describe the fanatical zeal that they supposedly have for their work. [34] Images of international workers have been found to be accompanied by descriptions such as 'aid cowboys' and 'aid mercenaries' [35] and 'misfits' [34]. These labels serve to typecast international workers who according to this synthesis are more interested in professional and personal development than addressing health inequity. However unclear roles, poor supervision and leadership were found to result in stress, ethical dilemmas and feeling disconnected from the work of other international personnel.

Strengthening the professional identity of humanitarian and development workers may help to clarify roles, improve staff support, teamwork and public perceptions and understanding of aid work at home and in developing countries. Professional associations have been argued as essential to ensuring professionalism [36] and can provide networking, advocacy and the development of core standards, competencies and certification. [37] However, efforts to establish a professional association remain untried and focus on the humanitarian sector not workers in development settings. Competencies for Australian international health professionals have been proposed [38] but these do not appear to have been evaluated nor applied in any systematic manner. This review shows that these proposed core competencies have validity particularly those related to cross-cultural, communication and management skills. However the diversity of staff roles and the different contexts of humanitarian and development health work will necessitate that specific public health and research skill requirements are developed for each cadre.

Our review identified strategies to improve staff motivation and efficiency including team building. Teamwork can be enhanced through the clear delineation of roles and responsibilities, structured protocols or policies and standards for communication, as well as mechanisms for exchanging information and coordination. [39] Such approaches could be incorporated into program and assignment plans and covered in preparedness training for international health staff. Inter-professional education and training may be useful to foster collaboration across sectors in low and middle income countries but this requires further investigation. [40]

Self-assessment was found in this review to be an important tool for regulating learning and managing personal, cultural and ethical issues in the field. According to Boud, [41] self-assessment refers to reflecting upon and judging one's own learning and behaviour and taking action. This can involve evaluation of practice against professional benchmarks such as competencies or personal development goals. Self-assessment could assist international health workers to devise strategies for dealing with the challenges of field work such as health threats [42] and build relationships for friendship and networks for support. Self-regulation through the assessment of one's professional practice has been shown to increase motivation and morale improving knowledge and performance. [43]

Self-regulation is useful for career planning [44] and could assist international health workers to make decisions concerning which projects and short contracts to pursue. Self-regulation is an important component of formal performance management [45] that can help health workers develop skills, knowledge, leadership capacity and partnerships with other professionals [46] that could be linked to attaining competence and certification. These aspects of professionalism need to be taught [47] and international health workers may benefit from guidance in self-regulation with structured activities built into preparedness and in-service training and in debriefing exercises on return home.

Developing a strong connection between self-regulation, on-going performance management, capacity building and aid effectiveness could be the next logical step towards a comprehensive approach to improving individual, team and aid program performance. Measurable indicators assessing international worker performance must be included as part of continuous monitoring and evaluation of development and humanitarian efforts and aid effectiveness. [14] Australia is recognising the need for such an approach as evidence by the latest AusAID Workforce Plan, [48] however little knowledge is available concerning how performance review and planning can be developed, best managed and mapped against health goals such as health systems strengthening and achieving the MDGs.

A framework for the performance management of development and humanitarian personnel incorporating self-regulation and workforce capacity building could be useful alongside other aforementioned efforts towards the professionalisation of international health workers. A matrix of human resources for health performance fields, [49] capacity building dimensions [50] aligned with health system strengthening criteria [51] and MDG health targets will enable the development of input, process and output level workforce performance indicators. [52] Clarifying performance indicators for humanitarian and development health workers may realise both horizontal and vertical alignment [53] at multiple levels in order to ensure that staff performance is fully integrated across all possible objectives of aid activities. Organisations such as the Australian Council for International Development may be able to play a strategic role in the development of professional associations for humanitarian and development workers. The leadership of this coordinating body for non-government overseas aid and international development organisations in Australia could assist with setting out appropriate education and training, regulation and accreditation to meet required performance goals and the professional and personal aspirations of those working in the humanitarian and development fields.

The study excluded grey material from evaluations and project reports that may have shed light on other international health worker challenges and lessons learnt, however the quality of such evidence may be questionable due to methodological issues.

International health workers make a valuable contribution to progressing humanitarian and development goals of lower and middle income countries. This review has highlighted the needs and experiences of international health workers, identifying gaps and strategies that could be harnessed to improve staff management and international aid practice.

Competing interests

The author declares that she has no competing interests.

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