TRANSLATION IN GLOBAL HEALTH EMERGENCIES

Hong Diao¹ ¹Sichuan International Studies University

Abstract: The link between translation and global health is an important yet under-researched topic. COVID-19 has opened a significant responsibility and a vast space for translation scholars in approaching this topic. Starting from a brief survey of research on translation and global health, this article examines the roles of translators and interpreters in knowledge translation, and thus in the combat against COVID-19 pandemic by investigating two cases, i.e., *Handbook of COVID-19 Prevention and Treatment* and Jin Ji's interpreting service in Italy. It is revealed that translators and interpreters have functioned as initiators, messengers, and co-producers of COVID-19 knowledge and they, in collaboration with other actors (health practitioners, medical researchers, policymakers, etc.), have contributed to the empowerment of patients and ordinary citizens in the fight. The author argues that translation plays an indispensable part in the transcendence of frontiers (sectorial, disciplinary, cultural, and geographic) in knowledge translation, especially during global health emergencies.

Keywords: Global health emergencies; COVID-19; Knowledge translation; Empowerment

Introduction

The 21st century has seen the outbreak of several infectious diseases such as SARS, the H1N1 influenza, Ebola, and Zika. These diseases, however, have been dwarfed by the coronavirus disease 2019 (COVID-19), as it has 'challenged and threatened human existence' (Ali, 2020, p. 3). The magnitude of this pandemic is daunting to all people around the globe, regardless of races, cultures, religions, nationalities, and ideologies. We have tragically



witnessed, inter alia, the loss of thousands of ordinary people and health workers, dire shortage of medical supplies such as mechanical ventilators and ECMO machines, unprecedented lockdowns and quarantines, universal travel bans and border closures, large-scale bankruptcy of companies, and forced cancellation of major sports events e.g., 2020 Summer Olympics and EURO 2020. The social, economic, cultural, and political fallout of this coronavirus is so devastating that some medical authorities compare it to the 1918 Influenza pandemic that claimed millions of lives (Chen et al., 2020). Undoubtedly, the impacts of this pandemic have also been felt by translators/interpreters, and translation/interpreting trainers and students worldwide. The other side of the coin is that translators and interpreters are also proactively making unremitting efforts to influence, i.e., help contain COVID-19. When the world is in lockdown, people still or more than ever need to be united, since '[i] f we choose disunity, this will not only prolong the crisis, but will probably result in even worse catastrophes in the future' (Harari, 2020); we also need to combat disinformation, misinformation, and malinformation about the pandemic the same way we're combating the pandemic itself. Effective and efficient interlingual and intercultural communication is a sine qua non in this battle. Against this background, it is urgent for us to investigate how translators and interpreters contribute to the fight against COVID-19 in particular, and global health emergencies in general. This paper was written in the early outbreak of COVID-19.

Before delving into the literature review, it is essential to settle the question of terminology. Evolving from the study of public health, global health is a relatively new concept which is defined as 'health problems, issues, and concerns that transcend national boundaries, may be influenced by circumstances or experiences in other countries, and are best addressed by cooperative actions and solutions' (Institute of Medicine, 1997, p. 2). By this standard, COVID-19 is quintessentially a global health emergency. Focusing on the entire spectrum of human health and wellbeing, global health research is an active research field that draws wide attention

from epidemiologists, and health policy and system researchers. Accordingly, global health translation is similar to but distinct from general medical translation in that it is usually conducted on a larger scale and involves more stakeholders.

The link between translation and global health is an underresearched topic in translation studies. The dearth of studies might be attributed to the fact that relative data are hard to obtain, and that research of this nature involves too much unpleasantness. That said, several attempts have been made to account for the role of translation in global health campaigns. A close examination of relevant literature further reveals that most attention has been paid to translation and HIV/AIDS awareness & prevention in developing countries. Wardlow (2012) unearths how the instructor-cumtranslator creatively translated information about the 'root causes' of HIV/AIDS in an awareness workshop in Papua New Guinea. In a similar vein, Sebotsa & Leshota (2018) conduct morpho-semantic and lexico-semantic analyses in their investigation of the impact of translation on HIV/AIDS-related terminology in Sesotho. Chibamba (2018) furthers the discussion by drawing our attention to intralingual and intersemiotic translation in the health campaign in Zambia. Kristensen et al. (2018), by contrast, analyze the translation of numeric health information from the health authorities to ordinary citizens in Denmark. In these important studies, questions have been raised about methods of translation, translation strategies, translation policies, and communication efficacy. By and large, however, these researchers fail to take account of translators/interpreters' roles and motivation of providing service in mostly unusual, and occasionally dangerous circumstances, nor do they examine translation patronage or collaboration mechanism among various stakeholders. Otherwise put, existing research remains focused on translation performance per se, rather than the dynamics of translators and interpreters as a proactive social group vis-à-vis global health emergencies.

I therefore find it worthwhile to probe into the services of translators and interpreters during the COVID-19 pandemic. To be

specific, I will evaluate the roles of translators and interpreters in the process of knowledge translation (hereafter KT), and thus in the combat against COVID-19 pandemic by investigating two cases, i.e., *Handbook of COVID-19 Prevention and Treatment* and Jin Ji's interpreting service in Italy. A clear understanding of translators/interpreters' roles and motivation in this pandemic, I argue, will offer us a vantage point to unravel the mechanism of KT and thus pave the way for future research on global health translation. This study is exploratory and interpretative in nature. The rest of the paper is structured as follows: section 2 will introduce KT—a core term in global health research—so as to establish the frame in which case studies will be conducted; section 3 will present two case studies before summarizing the ad hoc roles of translators and interpreters; section 4 will be the conclusion.

Translation and knowledge translation

While I can only gesture at the complexities of KT here, my intention is to lay the foundation for case studies in the next section and encourage a continued conversation between KT research and translation studies which will generate novel research topics. To this end, I will firstly elaborate on the term KT before inquiring into the roles translation should and could play in the process; I will then examine the convergence between KT research and translation studies.

It should be noted that 'translation' in KT refers to 'the activity or process of changing something into a different form' (Cambridge Dictionary Online). Although there have been a plethora of terms—such as knowledge exchange, knowledge transfer, knowledge mobilization, research utilization, and translational medicine—applied to describe the process of putting medical knowledge into practice, it is KT that is preferred by most researchers (Azimi et al., 2015, p. 96). The most widely applied definition of KT, then, was put forward by the Canadian Institutes of Health Research (CIHR) in 2000:

Knowledge Translation is defined as a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system. (CIHR, 2020)

Although the definition is invented in the Canadian context, it can be and is, in actuality, universally applied. The coinage of KT at the beginning of the 21st century is by no means an accident. As the industrial economy constantly shifts to the knowledge economy, knowledge is increasingly essential not only in the daily provision of health care, but also in clinical and managerial decision-making, workforce quality, and organizational behavior and structure (Lapaige, 2010, p. 35). The concept of KT was developed in an era when a vast pool of medical knowledge could not be mobilized and transferred efficiently and adequately into improved health products, services, and policies. As a complicated, dynamic, and interactive process, KT involves various stakeholders such as patients, health practitioners, healthcare managers, policymakers, researchers, research funders, and, arguably, translators and interpreters. Following Davies et al. (2005)'s typology of research use models, KT should be classified as an 'interactive model', in which 'the process is modelled as a set of (non-linear; less predictable) interactions between researchers and users, with research impact happening through complex social processes of "sustained interactivity" (p. 12).

Lapaige (2009, p. 42-43) identifies five types of knowledge in the health sector: (a) factual knowledge, or 'know-about' knowledge; (b) contextual knowledge, also called background knowledge or 'know-why' knowledge; (c) procedural knowledge, or one's every day 'know-how' knowledge; (d) social knowledge, a type of meta-knowledge, collaboration/interaction and derived from group work or collective action; (e) pragmatic knowledge, i.e., promising projects and success stories. Although they are five distinct knowledge types, there are

usually some overlaps in practice. By this standard, some essential knowledge of COVID-19 can be roughly categorized as follows: knowing that it is an infectious disease caused by a newly discovered coronavirus and that elder people and people with previous medical problems are more likely to develop serious symptoms is factual knowledge; knowledge of the epidemiological and pathological characteristics belongs to background knowledge; the importance of washing hands, wearing facial masks, and performing social distancing is both procedural knowledge and social knowledge; the development of vaccines and specific medicine to treat the disease is regarded as pragmatic knowledge.

KT is notoriously difficult (Armstrong et al., 2006; Komporozos-Athanasiou et al., 2011; Elledge et al., 2018). Straus et al. (2009) contend that barriers to KT exist at various levels: health care system, health care organization, health care teams, individual health care professionals, and patients. Unfortunately, linguistic and cultural barriers are altogether neglected. As KT is essentially an interactive process, its success naturally depends on the effectiveness and efficiency of communication among its stakeholders. Furthermore, KT on a continental or global scale is simply impossible without the intervention of translators and interpreters. In the case of COVID-19, the lack or failure of global KT does not only restrict the transfer, exchange, and utilization of first-hand clinical knowledge but also, more seriously, lead to incorrect decisions at governmental and institutional levels, thus jeopardizing the health of millions of people and putting lots of countries into grave danger. For instance, COVID-19 was once regarded as a 'rich man's disease' in some underdeveloped regions (Deccan Herald, 2020). This misconception will produce terrible consequences. Translators and interpreters can assist health practitioners and policymakers in establishing and reinforcing the social fabric on a global scale, which is an essential part of the efforts to stifle the virus. So what kind of translation/ translators can facilitate KT internationally? I will propose the following criteria: (1) readable, accessible, and target-oriented translation (information synthesis and rewriting as a necessary

strategy); (2) credible, authoritative, and committed translators. By 'authoritative', I mean the translators should at least be equipped with some basic epidemiologic and virologic knowledge; by 'committed', I mean the translators are self-motivated and dedicated. These criteria will be revisited in the next section.

Let us now turn to the convergence between KT research and translation studies. KT research is 'the scientific study of the determinants, process, and outcomes of KT' (Lapaige, 2010, p. 36). As an inherently interdisciplinary field, it involves clinical sciences, epidemiology, global health research, communication studies, policy studies, etc. Translation studies, in a similar fashion, has always been an interdisciplinary research field that interacts closely with other disciplines such as comparative literature, sociology, communication studies, cognitive neuroscience, and information science both theoretically and methodologically. KT research and translation studies strike a chord with each other ontologically and methodologically: both are interdisciplinary in nature, drawing heavily from different theoretical frameworks and research paradigms; both lay stress on 'transfer', 'synthesis', 'exchange', 'interaction', 'fidelity', and 'transcendence'; both involve three research objects/processes, say, production, dissemination, and reception. Gambier & Doorslaer (2016, p. 11-12) cogently points out that interdisciplinarity can generate new objects of investigation, enlarge our understanding of realities, and provide new methods of solving problems. I thus argue that the close engagement between KT research and translation studies could offer translation scholars a rich methodological resource and theoretical inspiration on the one hand, and could promise solutions to some conundrums besetting KT research on the other.

Translation in COVID-19: Two case studies

The two cases presented below concern devoted translators and interpreters from China, Italy, America, and Ukraine in the

COVID-19 containment. However, due to my limited knowledge and linguistic background, I will conduct a textual analysis only on English-Chinese translation and interpreting. Most data are collected from publicly accessible media reports and institutional websites.

Handbook of COVID-19 Prevention and Treatment

The Handbook of COVID-19 Prevention and Treatment (hereafter the Handbook), published on March 18, 2020, is a comprehensive guideline and practice manual for coping with COVID-19, compiled based on the accumulated clinical experience of treating COVID-19 gained by medical staff from FAHZU (First Affiliated Hospital of Zhejiang University School of Medicine), where more than 100 confirmed patients have been treated without patient death or staff infection. This 68-page open access e-book is divided into four parts: part One. Prevention and Control Management; part Two. Diagnosis and Treatment; part Three. Nursing; part Four. Appendix. Important topics covered in it include medical personnel protection management, application of bronchoscopy in the diagnosis and management of patients, psychological intervention for patients, daily management and monitoring of ECMO, and medical advice examples for patients. The *Handbook* encompasses knowledge of all the five aforementioned types. For instance, 'hospital practice protocols during COVID-19 epidemic' in Part One belongs to procedural knowledge as it centers around several procedures (e.g., disinfection procedure) while 'imaging findings of patients' in Part Two belongs to factual knowledge as it presents the factual information of various medical imaging tests (e.g., X-ray and CT). As an instant knowledge-sharing platform, the Handbook outshines journal articles and conference presentations insofar as KT efficiency is concerned.

The *Handbook* is initiated and funded by Jack Ma Foundation. The *Handbook* has been officially translated by FAHZU and Alibaba Cloud into English, Italian, Spanish, French, Japanese, German, Persian, Indonesian, and Arabic, and has been translated

into Turkish, Serbian, Dutch, Thai, Russian, Korean, Portuguese, Vietnamese, Polish, Hausa, Kiswahili, and Amharic by volunteer translators. These volunteer translations are revised and proofread by medical experts before being posted online. All these versions can be downloaded for free.

You can read the handbook online or download it for free.

English 中文 Italiano Español Français 日本語 Deutsch は Bahasa indonesia にいる Indonesia Indones

Figure 1: Download Center of the Handbook on Alibaba Cloud

Source: 新冠肺炎防治手册 (2020).

Translators have adopted different strategies in dealing with different types of knowledge, as is demonstrated in the following examples of the English translation:

Example 1

and add more language versions as soon as possible

人员流向按照"三区两通道"原则,设有污染区、潜在污染区、清洁区,分区明确,污染区与潜在污染区之间设置两个缓冲区(新冠肺炎防治手册,p.1).

The movement of people shall follow the principle of 'three zones and two passages': a contaminated zone, a potentially contaminated zone and a clean zone provided and clearly demarcated, and two buffer zones between the contaminated

zone and the potentially contaminated zone (Handbook of COVID-19 Prevention and Treatment, p. 1).

In translating this essential procedural knowledge, translators follow closely, if not rigidly with the Chinese original, at the price of compromising the English sentence structure. Grammatically, a predicate is missing behind the subject 'two buffer zones'. Nevertheless, the translation is concise, readable, and semantically loyal to the original.

Example 2

患者可携带电子通信设备与外界沟通。(新冠肺炎防治手册, p. 3).

Patients should be allowed to have their electronic communication devices to facilitate interactions with loved ones (Handbook of COVID-19 Prevention and Treatment, p. 3).

As is evidenced by Example 2, the translators are more flexible in dealing with social knowledge: '外界' (the outside world) is translated into 'loved ones'. This is surely not an error. If anything, this purposeful rewriting grants the knowledge some 'human touch'.

Example 3

浙江大学医学院附属第一医院是集医疗、教学、科研、预防、保健为一体的"国家队"医院,首批委省共建国家医学中心、国家区域医疗中心。医院以综合实力雄厚、医疗质量过硬、学科特色鲜明享誉海内外。医院综合排名全国第14,连续10年保持浙江第一,其中传染病学连续六年蝉联全国第一。(新冠肺炎防治手册, inside back cover).

Founded in 1947, The First Affiliated Hospital, Zhejiang University School of Medicine (FAHZU), is the earliest affiliated hospital of Zhejiang University. With six campuses, it has now evolved into a medical center integrating health care, medical education, scientific research and preventative care. In terms of overall strength, FAHZU is ranked 14th in China (Handbook of COVID-19 Prevention and Treatment, inside back cover).

By contrast, the translators have adopted a different method in translating some insignificant background knowledge. As the above example showcases, the introduction to the hospital is remarkably abridged and rewritten. The translators are aware that readers in the Anglophone world are probably not interested in the detail of the hospital.

Let us now shift our attention to the patron and volunteer translators of the *Handbook*. Jack Ma (马云), a Chinese business magnate and philanthropist, is the co-founder and former CEO of Alibaba Group, one of the world's largest retailers and e-commerce companies. He also established Zuodao, a language crowdsourcing platform. His initiation of the Handbook as well as its multilingual translations, and interest in the translation industry is largely attributed to his educational background and experience as a translation manager. Ma graduated from Hangzhou Teacher's Institute (now Hangzhou Normal University) in 1988 with a Bachelor of Arts in English and started his first company—Hangzhou Haibo (海博) Translation Agency—in 1994. Besides patronizing the Handbook, Ma also established the Global MediXchange for Combating COVID-19 (GMCC), an online communication and collaboration platform, on which medical questions about COVID-19 are asked and answered by people from different countries.

Olohan (2014, p. 19) defines volunteer translation as 'translation conducted by people exercising their free will to perform translation work which is not remunerated, which is formally organized and for the benefit of others'. It is essentially

an altruistic act. In the case of COVID-19, the willingness and passion of volunteer translators to translate and disseminate the *Handbook* is primarily stimulated by a belief that medical knowledge contained in the *Handbook* is a public good which not only benefits the immediate readers but also medical progress as a whole. Online translation and dissemination make the *Handbook* accessible to the greater public, thus largely enhancing the effectiveness and efficiency of KT on a global scale. I will focus on three volunteer translators of the *Handbook* in the next part.

As is reported by The Paper (2020), dozens of volunteer translators have participated in the translation project. One of them is Alexey Tsapov, a Ukrainian freelance translator who is conversant with five languages. As the co-translator of the Russian version, he remarks, 'it took me two times longer to translate this Handbook than other material of the same size, but I feel very honored to be involved, because it is part of the concerted efforts to save lives' (ibid.). The other two translators are Daniel Suárez-Baquero, a doctoral student of the School of Nursing of the University of Texas at Austin and Oscar Rocha, a research fellow of the same school. According to the university news (2020), they completed the Spanish translation and editing of the Handbook in three days and emailed the translated *Handbook* to every hospital in Colombia. As such, they spread the Handbook to many health care providers, especially those in rural areas, who would otherwise have limited access to the latest knowledge of the virus. Regarding the motive of translation, Suárez-Baquero explained, 'there is a lot of information out there in English and Chinese to assist health care providers fighting the spread of the virus, but there are very few resources in Spanish' (ibid.). It is indicated that these volunteers' altruistic motivation to translate is to spread useful knowledge to their homelands, to save lives, to advance the progress of medical science, and to promote the greater good of humanity.

The dissemination of the *Handbook* can be examined through a glimpse of the websites which have shared the English and French versions. The English version was first published on the official

websites of Alibaba Cloud and Zhejiang University and was then disseminated on the websites of the journal of *Nature*, ResearchGate, Reddit, *China Daily*, Healthcare Information For All (HIFA), Active Learning Network for Accountability and Performance (ALNAP), The European Federation of the Associations of Dietitians (EFAD), International Association of Universities, Medical University-Plovdiv, The Roscongress Foundation, *Ottawa Life Magazine*, and other blogs and commercial websites. It was shared by Dr. Ligen Yu from Nanyang Technological University on ResearchGate and by April 20, 2020, the English version has 39,772 Reads, a significant number considering the short time span. The French version *Manuel de prévention et de traitement du COVID-19* has been disseminated by such websites as Le Crès, EcoActu, Société Française des Infirmier (e)s Anesthésistes, and Société Française de Cardiologie.

There is also some negative feedback on the *Handbook*, as is manifested by a comment on Reddit, 'Lots of people just shoveled it into category of propaganda without even reading it'. A topic broached here is translation and ideology in global health emergencies. This interesting topic, however, deserves another full-length paper.

Jin Ji's interpreting service in Italy

The second case concerns Jin Ji (吉亚)'s interpreting service for the Red Cross Society of China Delegation—which is comprised of four epidemiologists and virologists, two coordinating officials, and an interpreter—to Lombardy, Italy in mid-March, by which time Italy had become the hardest-hit country of COVID-19 in Europe and its death toll had topped China. It is noticed that all the speakers and interpreters wore facial masks properly, which is indeed a part of KT. The next two interpreting examples are excerpted from the press conference of the delegation on March 20. Shuopeng Sun — the delegation leader — and Attilio Fontana — conference chair and president of Lombardy — were the speakers while Ji

was the Chinese-English interpreter. Press conferences are an important site of KT, especially during global health emergencies, as the first-hand experience of preventing and treating diseases is exchanged through face-to-face communication.

Figure 2: The Press Conference of the Red Cross Society of China Delegation (from left to right: Attilio Fontana, Shuopeng Sun, Jin Ji, and the English-Italian interpreter.)



Source: 中国红十字会在意大利开记者会 (2020).

Example 1

米兰是我们意大利国内疫情最严重的一个城市,但是我发现,这里的封锁令或者管控令是非常松,宽松的一个城市。我看到了它的公交车还在运行,我看到它的人还在运行,我看到酒店人还在聚会,我看到很多不戴口罩的。我不知道大家在想什么。(中国红十字会在意大利开记者会, 2020).

But I found here in the city of Milan, which is the hardest hit area of COVID-19 and you are not having very strict lock up policy of the city because the public transportation is still working, and people are still moving around, and you are still having, like dinners and parties in the hotels and you are not wearing masks (中国红十字会在意大利开记者会, 2020).

The speaker was expressing his deep concern about the effectiveness of the lockdown measures in some Italian cities. In calling for more stringent lockdown measures, he was very serious if not somewhat domineering. His remark '我不知道大家在想什么' (I do not know what is on your mind) is reproachful, and hence inappropriate on this occasion. The speaker's wording and tone disclose his ignorance of cultural differences and skill deficiency of public speaking. Had the interpreter translated this remark literally into English, the speaker's good intentions might have led to bad outcomes. Instead, Ji remained steady in voice and skipped the reproachful remark without compromising the essential knowledge delivered by the speaker. Ji's 'exercise of discretion' (Skaaden, 2019) ensures that the 'dialogue' between the speaker and the audience will be on track, demonstrating her coordinating and conciliatory function.

Example 2

我们必须要让时间停下来,让我们正常的一种经济停下来,让人的平时我们喜欢的这种人际交往的停下来,可以说让生活宅在家里头,全力,全力以赴地为保护生命,生命是最值得大家付出所有代价的。(中国红十字会在意大利开记者会,2020).

Right now, we need to pause the time, we need to stop all the economic activities, and we need to cut the mobility of people. All people should be staying at home for quarantine and we need everybody to be fully geared and fully prepared for the protection of lives because the lives of our people is the most important matter right now (中国红十字会在意大利开记者会, 2020).

This was almost the end of the press conference. The interpretation is on the whole accurate. It is noticeable from the video that in her interpreting of this part, Ji raised her voice volume, turned more resolute in tone, and increased her eye contact with the audience, the other interpreter, and the conference chair. In so doing, she drew attendees' attention to the urgency of making concerted efforts in fighting the disease while expressing a sense of confidence and optimism.

Proficient in both Chinese and English and well equipped with soft skills such as intercultural awareness, cognitive flexibility, and resistance to stress, Ji has successfully completed the interpreting task as far as the press conference is concerned. Ji is a lecturer of interpreting at Sichuan University and a part-time interpreter. In an interview by SCTV, Ji talked about her preparation for the interpreting,

As a matter of fact, I have always paid attention to terminologies related to COVID-19 since its outbreak. I have updated my terminology bank on a daily basis for almost two months, but I do not think that is enough for conducting the interpreting. I especially need to update my knowledge on clinical parameters, which is indeed a great challenge for me (SCTV, 2020, mine translation).

This indicates that Ji, as an experienced and self-motivated interpreter, had anticipated COVID-19 related interpreting service to some degree. When she was assigned the task, she put more efforts into updating her knowledge of the disease. Providing interpreting service to the delegation is a great challenge considering a large amount of terminologies involved and the highly dangerous sites (e.g., conference rooms, hospitals, research institutes) where interpreting takes place. Her courage and professionalism are fully exemplified.

Translators/interpreters as initiators, messengers, and coproducers

Research foci in translation studies in recent years have unequivocally shifted from linguistic accuracy to translators' agency and roles within ideological, socio-cultural, and political contexts (Toury, 1995). COVID-19, as one of the worst pandemics we have suffered, has devastated every level of society. The challenges faced by human beings, especially those in underdeveloped regions are compounded by the inaccessibility to medical equipment and knowledge. As an integral part of the efforts to fight against the pandemic, KT can play a significant role in the provision of prevention, diagnosis, and treatment expertise, and in the education on medical staff self-protection. Central to KT on a global scale is interlingual and intercultural communication. Translators and interpreters worldwide have stepped up to play their part in these turbulent times. Nevertheless, translation per se is sometimes an insufficient strategy. The communicated knowledge should be credible on the one hand, and be decipherable and actionable on the other.

As a former translation manager and somewhat opinion leader, Ma initiated and patronized the translation of the *Handbook*. The involvement of 'trusted sources', i.e., medical staff from FAHZU, largely enhanced the credibility of the English translation. By the same token, the medical expertise of Suárez-Baquero and Rocha increased the credibility of their Spanish translation. Tsapov is not a medical expert but he has rich experience in translation and has established a wide social network. His translation can thus be widely disseminated. These translators, in collaboration with their peers and other stakeholders, rendered the *Handbook* into various versions and disseminated them to different countries. As such, they, in one way or another, have initiated the *Handbook* and co-produced COVID-19 related medical knowledge. Moreover, they have all taken good advantage of online platforms and social networks. Ji's identity as a lecturer from a prestigious university

contributes to her credibility. She provided interpreting services to the Red Cross Society of China Delegation in Italy, bringing the warning message to a region in need. In a sense, she is not only an interpreter but also a messenger. As the case studies demonstrate, committed translators and interpreters worldwide have, individually or collectively, facilitated the transcendence of frontiers (sectorial, disciplinary, cultural, and geographic) of COVID-19 related knowledge translation on a global scale through their altruistic actions, and in so doing they have empowered health care providers, patients, and ordinary citizens in the fight against the pandemic.

An additional issue in the translation of KT merits our attention: ethics. Translation ethics is a recurrent topic in translation studies (see, for instance, Gouanvic, 2001; Inghilleri, 2008; Drugan & Tipton, 2017; Skaaden, 2019). Translation ethics in KT is more protruding since it is closely intertwined with medical ethics. Moreover, as the translation of KT takes place in various settings and cultural milieus and involves multiple stakeholders, what is considered ethical in one context and/or by one stakeholder may be considered otherwise in another context and/or by another stakeholder. In light of this, the translators should analyze 'what could be translated', 'with whose consent (of copyright)', 'to what audience' before taking any action, keeping in mind that ethically-sound translation of KT is the first principle.

Conclusion

This study aims to stimulate interest in the research of global health translation, a significant yet under-researched topic. Notwithstanding the limited scope and scale of this paper, it fulfills two important functions. Firstly, it introduces the concept of KT and elaborates on the possibility and spaces of collaboration between KT research and translation studies. Secondly, it presents two case studies of translators and interpreters, revealing that they

have played the roles of initiators, messengers, and co-producers of COVID-19 knowledge in the global fight against the pandemic, thus empowering health care providers, patients, and ordinary citizens. To recap, translation has played an essential part in the containment of COVID-19, and by extension, in closing the knowdo gap or evidence-practice gap, and in overcoming the silos between researchers and research consumers in the domain of global health.

If there is any positive side of COVID-19, then it is the fact that it allows us to understand the genuine value of unity, solidarity, and connectivity, and the devastating harm of xenophobia, unilateralism, and ultranationalism. A world riven by political division and social isolation will only be more vulnerable. This fight, like the fights against other common enemies of human beings—terrorism, global warming, environmental degradation, etc.—cannot be won alone in the global age. Together we will certainly overcome COVID-19, but, unfortunately, we will surely be confronted with other global health emergencies in the future. Translation has a role to play.

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Hong Diao. Shapingba District, Chongqing, China. E-mail: jacksglj123@163.com. https://orcid.org/0000-0003-4509-7144.