

**A Systematic Review of Operation Smile Through Ethical Frameworks**

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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## Introduction

There is a lack of basic surgical care worldwide with 34.8% of the global population receiving only 3.5% of all surgical procedures (Grimes & Lane, 2013). This disproportionately affects billions of individuals that live in low- and middle-income countries (LMICs). Surgical intervention can increase an individual's life expectancy, but it is not being made a public health priority due to its cost. Local governments are not discussing the impacts of surgery and poor surgical conditions and as a result surgery continues to be underfunded and underdeveloped in these LMICs (Varela et al., 2020). To improve access to surgical care, international surgical organizations (ISOs), also known as surgical non-governmental organizations (NGOs), were created. These organizations typically come from high-income countries (HIC) and prepare short-term, volunteer-based medical missions in LMICs (Martiniuk et al., 2012). They can cover basic surgery or treat more specific conditions including hernias, congenital anomalies, burns, obstetric fistulas, and more (Nagengast et al., 2021). These surgical NGOs are continuing to grow with charitable donations increasing every year in the United States (Grimes & Lane, 2013).

Operation Smile is an international medical not-for-profit organization that provides free surgeries for patients with cleft lip and palate in LMICs (Magee et al., 2012). Cleft lip and cleft palate are craniofacial abnormalities that affect one in every 500 children born. This birth defect can affect a child's nutrient intake and speech and it is recommended that surgery is performed within the first 12 months of life (CDC, 2020). Since their founding in 1982, Operation Smile expanded from treating hundreds of patients to about 13,000 patients in 2020 alone (*Operation Smile*, n.d.). They are headquartered in the United States and their impact on the world is thanks to their large volunteer base from over 30 countries. They are committed to providing safe,

sterile surgical environments and post operative care for children and adults that suffer from this genetic abnormality.

When viewing Operation Smile through the scope of duty and care ethics, they provide one of the most effective and comprehensive care models. Their model of care highlights how the commitment to ethical care can improve the success and quality of providing surgical care for hundreds of thousands of individuals in underprivileged areas. This paper analyzes Operation Smile's model of care using two ethical frameworks to identify and evaluate their strengths and weaknesses. The literature review will highlight current ethical concerns surrounding ISO's that involve both host and visitor parties. It will then summarize Operation Smile's current model of care and the organizations opinions of their model and their definition of efficacy. The data presented includes numerical data from Operation Smile's surgical outcomes auditing system and other statistics related to surgical NGOs. After applying duty and care ethical frameworks to Operation Smile's approaches it helps further explain strengths and weaknesses of their care. These findings can then be applied to other surgical NGOs to help executives think more thoroughly when designing or revising their organizations impact.

## **Literature Review**

There are ongoing ethical concerns associated with International Surgical Organizations. Short-term medical missions usually provide a very temporary solution to the ongoing surgical burden of disease. Despite this wide scope of care and their impact in these low-income regions, NGOs are often criticized. Ethical dilemmas regarding international surgery can fall on representatives of both the host and the visitors. Surgical NGOs are trying to increase accessibility of surgery, so deciding the location of the mission can be an issue in itself. Visitors

have to choose the country that they are going to allocate their resources to but the organization's selection criteria can be questioned; this could be even more complex when choosing a region within a given country. There is no clear cut answer to how destinations are decided beyond the basic demonstrated surgical need. Some considerations are infrastructure, such as access to facilities, safe roads and power, language and the organizations connections. The next criticism that often falls on NGOs is their engagement with the local community. Surgical organizations are evaluated based on how they interact with the host countries such as their impact beyond the surgery alone and cultural consideration. Medical missions are also seen to have limited engagement when they do not utilize healthcare personnel from the host country. This eliminates eventual skill translation and contributes to the lack of a sustainable solution which is another ethical dilemma of NGOs (Nagengast et al., 2021). A sustainable solution can be described as strengthening surgical systems to promote the health and welfare of everyone (Roa et al., 2019). The short medical missions can only provide services to a small capacity of patients. There are still a large number of patients that require surgical intervention and oftentimes the local volunteers, if they are even utilized, are unable to perform the procedure alone. In addition, if NGOs are successful in the training of local volunteers, resources that are needed to operate on patients can be a limitation after the mission is completed (Howe et al., 2013). This is also related to the need to address post operative care. Patients often require further evaluation and intervention after surgery and a concern with ISOs is where and when they are receiving that care, if at all. This can become a quality of care concern especially when these needs are not being met after the short period of time that they are there.

Operation Smile's current model of care has gone through many iterations over the years to address problems associated with ISO's. Along with the expected surgical correction of cleft

lip and palate, Operation Smile provides five additional services to ensure patients are receiving the necessary post operative care. This comprehensive care includes psychosocial, orthodontics, speech therapy, dentistry, and nutrition (*Operation Smile*, n.d.). Operation Smile claims their number one priority is the safety of the patients which is evident with roles like the Quality Assurance (QA) officer. There are QA officers on every mission and their job is to evaluate each phase of the mission for patient safety and quality of surgical results. Another commendable aspect of their model is the use of local volunteers. Nearly 80% of their staff are medical volunteers from LMICs and have received proper training from Operation Smile professionals. They even have long term goals such as establishing year-round centers in every country that they work (*Operation Smile*, n.d.).

Operation Smile believes that their standards are effective and provides the greatest impact on patients. They emphasize the value in investing in a surgical outcomes auditing system to provide measures of success. Operation Smile even published an article showing how increasing the quantity and completeness of data results in more investments by demonstrating more success and quality of care. This was used to show the benefits of this system despite organizational efficacy often being judged by the percent of resources spent towards direct intervention/surgery (Bermudez et al., 2013). They are also constantly working to set standards for other organizations such as minimum patient follow up and quality of care. They are aware of their impact and they are constantly spreading their knowledge to help other ISO's and make surgery more accessible for all (Nagengast et al., 2021). Operation Smile believes that medical missions are an important tool for reducing the burden of surgical disease as long term solutions are the end goal. They think that there is no one size fits all model but that you have to cater to

the challenges and factors of each country. An organization's ability to adapt to these situations will determine the success and efficacy of a mission (Magee et al., 2012).

I will be using duty ethics and care ethics to evaluate Operation Smiles efficacy and analyze them as an organization. Duty ethics, also known as deontological ethics, is a moral theory that guides us on what is required, forbidden or permitted unlike other theories that tell us what we should do (Alexander & Moore, 2021). It focuses on one's beliefs of what is right and wrong despite the consequences. This framework, associated with philosopher Immanuel Kant, emphasizes the importance of following rules and fulfilling one's obligations and duties to others. To Kant these obligations and duties are known as a categorical imperative (Misselbrook, 2013). There are two formulations of the categorical imperative which I will explain further in the analysis section.

Care ethics is a moral theory that prioritizes the living and the experienced realities of people and focuses on those who are vulnerable or marginalized. Originally created by Carol Gilligan, it emphasizes relationships and compassion when making decisions. There are many interpretations of care ethics but I will mainly be focusing on maintaining the needs of others through a caregivers perspective. We can evaluate ISOs through the scope of these ethical frameworks and apply them to the major issues and how they are being addressed.

## **Methods**

In this paper I used a literature review of articles pertaining to surgical NGOs and Operation Smile specifically. Since Operation Smile works on a global scale I used data and reports on missions in multiple LMICs but I used written material from the past 20 years. I also analyzed resources that report on both the visitors and the hosts perspectives to avoid bias in my

conclusions. This was the most effective way to investigate Operation Smiles methods of care while also considering other viewpoints.

The primary sources for this paper are from written material produced by Operation Smile. This includes reports from their research and outcomes department and information from their website. Secondary sources used were academic journal articles primarily found on the National Institutes of Health's PubMed. These articles contained information on current issues related to ISOs from both the host countries and the visitors perspective. They also contained some media/ journalistic accounts which I used to gain a more direct and unbiased opinion on ISOs. For my analysis I tried to utilize more articles that discussed Operation Smile's past missions. In review of this evidence, I examined a case study using two ethical frameworks. Operation Smile is a specific case study of a surgical NGO and I wanted to look into why they are successful and how they got to where they are and evaluate them through duty and care ethics.

## **Analysis**

Operation Smile has undergone many changes since its founding in 1985. They have grown from short term medical volunteer missions to establishing local foundations in their 60+ countries that they work in. They are able to impact so many individuals due to their adaptability over the years and their continual improvement of their quality of care. By evaluating the specific components of Operation Smile's model of care using duty ethics and care ethics, we can examine how well the organization fulfills its moral duties and responsibilities.

When viewing Operation Smile from a duty ethics perspective, as medical providers they have an obligation to provide surgical intervention to those in need. In order to reach as many

patients as possible they deploy patient coordinators who execute country-wide awareness and recruitment campaigns to advertise the services they provide (Operation Smile, n.d.). They spend months in advance traveling the country and educating people on the opportunity. This aspect aligns with duty ethics because they have a moral responsibility to act for the benefit of others and this component allows them to make their services more accessible. As mentioned before, Operation Smile is dedicated to the quality of their practice. With aspects like the QA officers, the surgical auditing system, and their research and outcomes department, Operation Smile dedicates many resources to improving their model. This aspect aligns with the duty of non-maleficence, which requires that we avoid causing harm to others. They make sure that the patients are safe at all times throughout the process and that they are not causing any additional pain to the patients. Many of these provider duties can be derived from Kant's first formulation of the categorical imperative to "Act only by that maxim by which you can, at the same time, will that it be a universal law" (Misselbrook, 2013). One weakness that Operation Smile possesses is that they do not make it clear what selection criteria they use when choosing which areas they work in. Based on the categorical imperative one must uphold justice as fairness and in order to ensure this there needs to be transparency.

Operation Smile addresses their duty to respect the autonomy and dignity of others in many ways. They follow global standards of protecting patient privacy and also require documented patient consent before health intervention. They also ensure that patients are properly informed before providing consent. Operation Smile explicitly states all of the procedures and information that they are going to collect during intervention to ensure transparency and honor patients rights (*Code of Conduct*, n.d.). In addition, Operation Smile always considers the cultural norms of the countries they are visiting. Their code of conduct is



proudly displayed on their website and it emphasizes respect and sensitivity of cultural differences and local customs (*Operation Smile*, n.d.). This respect for autonomy is Kant's second formulation of the categorical imperative that states to “So act as to treat humanity, whether in your own person or in that of any other, in every case as an end in itself, never as a means only” (Misselbrook, 2013). This formulation is often used in medical ethics especially when describing the relationship between the patient and the provider (Donaldson, 2017).

Using the duty ethics framework one is able to see how well Operation Smile acts and adapts to their moral obligations as international providers. Even though this framework provides useful insight when evaluating how operation smile addresses ethical issues, there are some flaws and limitations. For example, Operation Smiles' duty to provide healthcare to those affected by cleft lip and cleft palate might ignore the needs of other individuals in the country who need other/ general surgery. Kantian deontology cannot prioritize one duty over another making it hard to apply when making extremely complex decisions.

Through the lens of care ethics, Operation smile is very admirable. Care ethics values the social relations between the caregiver and the care receiver (*Care Ethics | Internet Encyclopedia of Philosophy*, n.d.). Operation Smile creates that connection by utilizing over 6000 local medical volunteers in both their international and local medical missions. In this example the medical volunteers can be categorized as both care givers and receivers in the sense that they are providing care and also receiving aid/ knowledge from another caregiver. This network builds a more intimate relationship with the countries they visit and works towards improving local capacity. The educational and professional interaction between local and visiting volunteers creates a community of trust which ultimately allows them to provide better care. With more than 100 medical missions, in over 30 countries it is evident that Operation Smile maintains

these relationships in these countries. Some of these host countries have even entrusted them with establishing permanent care facilities demonstrating their trust and also Operation Smiles commitment to a sustainable solution.

Operation Smile also demonstrates concern for less fortunate populations who lack basic access to healthcare, geographically and financially. Their missions are conducted primarily in LMICs with limited surgical providers and access to healthcare. Moreso, they are aiding those affected by cleft lip and palate which is more prevalent in underdeveloped countries. Their entire existence is based on compassion and empathy which is a main center of care ethics. This can be seen in Operation Smiles interdisciplinary approach. To correct cleft lip and cleft palate Operation Smile could only just provide surgery and post operative care; however, they go above and beyond by providing psychosocial, orthodontics, speech therapy, dentistry, and nutrition. This model shows their compassion for these children who have suffered their whole life. Operation Smile is not only giving them an opportunity to live a more normal life but they provide additional correctional solutions that improve their mental health and wellbeing. Volunteers also provide educational opportunities to the local communities with modules on dental hygiene, nutrition, hand washing and hands only CPR. The additional education is an example of Operation Smile cares for the communities they serve and their impact beyond surgical intervention.

Although care ethics is also often used in a healthcare setting it can be inconsistent at times. One could also argue care ethics that fails to recognize other relationship limitations such as power dynamics, conflict and justice. The emphasis on relationships can often oversee other critical arguments making it sometimes difficult to justify alone. Despite these counter arguments there is still value in both of these ethical frameworks' applications.

## **Conclusion**

Evaluating Operation Smile's model of care through the scope of care ethics and duty ethics highlights the organization's commitment to providing care to underprivileged areas and fulfilling obligations to provide basic healthcare services. Their work outlines the importance of building sustainable solutions and empowering local communities to address the surgical burden around the globe. This paper can provide another means of evaluation or ideation for Operation Smile executives. The ethical frameworks can help them identify their areas of success and allow them to make more insightful, upcoming and future ethical decisions. In addition, these ethical frameworks can inspire new and pre-existing ISO executives who aren't as well established as Operation Smile to think thoroughly about their duties as providers and how they build relationships with the host countries. In conjunction with this research I believe that further research in the experiences of the host countries should be done. Throughout the research of this paper I noticed a general lack of reported host country feeling and I think it would be beneficial for the development of Operation Smile and other ISOs to look into. This development could provide these organizations with more honest, concrete testimonies that could improve their quality of care and bring light to any host related issues that aren't being addressed. Overall, the application of duty and care ethics to care models can help ISOs improve their operation and increase the impact that they have on the world through accessible healthcare.

## References

- Alexander, L., & Moore, M. (2021). Deontological Ethics. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Winter 2021). Metaphysics Research Lab, Stanford University. <https://plato.stanford.edu/archives/win2021/entries/ethics-deontological/>
- Bermudez, L., Trost, K., & Ayala, R. (2013). Investing in a Surgical Outcomes Auditing System. *Plastic Surgery International*, 2013, 671786. <https://doi.org/10.1155/2013/671786>
- CDC. (2020, December 28). *Facts about Cleft Lip and Cleft Palate* | CDC. Centers for Disease Control and Prevention. <https://www.cdc.gov/ncbddd/birthdefects/cleftlip.html>
- Code of Conduct*. (n.d.). Operation Smile. Retrieved April 7, 2023, from <https://www.operationsmile.org/code-conduct>
- Donaldson, C. M. (2017). Using Kantian Ethics in Medical Ethics Education. *Medical Science Educator*, 27(4), 841–845. <https://doi.org/10.1007/s40670-017-0487-0>
- Grimes, C. E., & Lane, R. H. (2013). Surgery and the global health agenda. *Journal of the Royal Society of Medicine*, 106(7), 256–258. <https://doi.org/10.1177/0141076813476678>
- Howe, K. L., Malomo, A. O., & Bernstein, M. A. (2013). Ethical Challenges in International Surgical Education, for Visitors and Hosts. *World Neurosurgery*, 80(6), 751–758. <https://doi.org/10.1016/j.wneu.2013.02.087>
- Magee, W. P., Raimondi, H. M., Beers, M., & Koech, M. C. (2012). Effectiveness of International Surgical Program Model to Build Local Sustainability. *Plastic Surgery International*, 2012, 185725. <https://doi.org/10.1155/2012/185725>
- Martiniuk, A. L., Manouchehrian, M., Negin, J. A., & Zwi, A. B. (2012). Brain Gains: A literature review of medical missions to low and middle-income countries. *BMC Health Services Research*, 12, 134. <https://doi.org/10.1186/1472-6963-12-134>
- Misselbrook, D. (2013). Duty, Kant, and Deontology. *The British Journal of General Practice*, 63(609), 211. <https://doi.org/10.3399/bjgp13X665422>

- Nagengast, E. S., Munabi, N. C. O., Xepoleas, M., Auslander, A., Magee, W. P., & Chong, D. (2021). The Local Mission: Improving Access to Surgical Care in Middle-Income Countries. *World Journal of Surgery*, 45(4), 962–969. <https://doi.org/10.1007/s00268-020-05882-8>
- Operation Smile*. (n.d.). Operation Smile. Retrieved October 28, 2022, from <https://www.operationsmile.org/>
- Roa, L., Jumbam, D. T., Makasa, E., & Meara, J. G. (2019). Global surgery and the sustainable development goals. *British Journal of Surgery*, 106(2), e44–e52. <https://doi.org/10.1002/bjs.11044>
- Varela, C., Young, S., Groen, R. S., Banza, L., Mkandawire, N., Moen, B. E., & Viste, A. (2020). Deaths from surgical conditions in Malawi—A randomised cross-sectional Nationwide household survey. *BMC Public Health*, 20(1), 1456. <https://doi.org/10.1186/s12889-020-09575-8>