Turning good intentions into good outcomes: ethical dilemmas at a student-run clinic and a rubric for reflective action

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ABSTRACT

Student-run clinics represent a unique medical education and healthcare delivery model powered largely by good intentions. These good intentions may produce guestionable results, however, when juxtaposed with intense academic pressure to fill one's curriculum vitae with personal achievements, leadership roles and peer-reviewed publications. It becomes a legitimate ethical question whether student-run clinics consistently and materially enrich the care of underserved communities, or merely inspire a litany of rushed, short-term and low-quality projects that sidestep patient welfare or even cause brazen harm. As co-directors of HOMES Clinic, a student-managed clinic which offers free health and social services to people experiencing housing insecurity, we routinely encounter such well-intentioned but ethically questionable proposals. Here, we present four short case studies that dissect apart some of these common yet suspect assumptions underpinning student-run clinics. We then conclude with a rubric for reflective, calibrated action.

INTRODUCTION

Recent years have seen a renaissance within medicine for addressing the social determinants of health (Kern, Branch, and Jackson 2005; Lewis et al. 2020; The Lancet 2019). In particular, appreciation for the structural forces that contribute to individual pathology is now an expected learning outcome of medical education. This expectation is codified by the Liaison Committee on Medical Education (LCME), a major accrediting body for US medical schools, which now includes awareness, prevention and management of 'the medical consequences of common societal problems' as a curricular standard in physician training (LCME 2022). This represents important systemic progress. At the same time, the wave of increased

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activity directed at health disparities has created its own riptide of ethical questions.

Student-run clinics (SRCs), which typically provide free healthcare to underserved populations and are governed by an executive board of students (Smith et al. 2014), are an important nexus of such questions. Most SRCs are staffed by licensed physicians that provide instruction, diagnoses and treatment. As such, they are expected to maintain the same standard of care as conventional clinics. Unlike conventional clinics, however, SRCs provide a platform for students to implement projects, clinical interventions and workflow changes. In this setting, good intentions may produce questionable results when juxtaposed with intense academic pressure to fill one's curriculum vitae with examples of leadership and achievement, often within a relatively short timeframe. It becomes a legitimate ethical question, then, whether certain SRC activities materially enrich the care of underserved communities, or merely inspire a litany of rushed, short-term and low-quality projects that sidestep patient welfare or even cause brazen harm. This tension is exacerbated by a lack of ethical and curricular standardisation at SRCs and varying levels of oversight (Shah et al.

Ethical dilemmas in caring for underserved populations are not new. But it is certainly more difficult to discern the outlines of our own ethical misconduct, especially when cloaked in our own good intentions. In the best-case scenario, misguided efforts to serve vulnerable patients represent missed opportunities to redress inequities and educate impactful future health advocates. In less innocent cases, we may inadvertently perpetuate the very disparities we seek to remedy. Such provider-driven insults might even be rightly described as iatrogenic health disparities. Without appropriate safeguards in the SRC setting, ethical myopias are afforded a pipeline to effect real human harm.

In the pointed critique of such iatrogenic disparities that follows, we offer no pretence that we, the authors, are conferred some sort of moral high ground. More often than not, it has been our own missteps that have alerted us to the fault lines of unreflective activism. We also look to our patients: the ultimate barometer for what separates valuable intervention from ill-advised do-goodery. Their candid instruction has provided helpful tools for reflection and reform.

Here, we offer an account informed by our first-hand experience as three individuals who lead an SRC for people experiencing unstable housing. In this role, we frequently field proposals ranging from patient surveys to the creation of subspecialty clinics. This has prompted lively reflection and debate on the issues described below, arguably affording some insights along the way. After conducting a Delphi panel (Hohmann et al. 2018), we have distilled this experience into a simple rubric for reflective action in the SRC setting (figure 1). The four case studies that follow illustrate and exemplify the principles of this rubric in narrative form.

A few disclosures are in order. First, we use pseudonyms and change details to protect confidentiality—both of patients, volunteers and organisations—while preserving the salient learning points. Second, as a clinic that serves people with housing insecurity, our case studies reflect this demographic focus. Nonetheless, the analysis that follows is relevant to SRC settings generally. Third, for the purpose of this discussion, we set aside the implied question of whether SRCs themselves are ethically permissible, which has been raised elsewhere (Buchanan and Witlen 2006; Vinarcsik and Wilson 2022). Since there are over 150 SRCs in the USA actively interfacing with indigent populations, as a practical matter we focus on dilemmas that arise within the SRC setting. Finally, we offer our rubric not as a rigid checklist, but rather as a starting point for fruitful reflection. Such directed reflection is the path towards serving our patients with both the necessary initiative to effect meaningful change and the requisite humility to first do no harm.

Case I: referring patients to community resources

Jackson, a soft-spoken man aged 56 years who had spent the past 2 years on the streets, presented to our clinic on a sweltering Sunday morning in July. Based on a thorough medical and social history, we recommended that Jackson follow-up





PROPOSING A PROJECT?



In caring for the underserved, good intentions do not always equate with good outcomes. The questions below are a tool to help assess some common ethical concerns for Student Run Free Clinics. This rubric is not meant as a rigid checklist, but rather as a starting point for fruitful reflection.

WHO BENEFITS?

Merely surveying people, providing health screenings without an attainable path to treatment, or outputting poster/manuscript related to the social determinants of health does not inherently equate to material benefit.

Screening participants (e.g. skin checks) without providing access to appropriate follow-up diagnostics, needed medicines, and specialty care, is perpetuating a health disparity rather than health "care."

Participants walk away with material benefit (e.g. improved health status, a confirmed appointment linking them into affordable and higher level care, etc) - the proposed intervention truly benefits the target population

ARE THE PROPOSED METHODS APPROPRIATE? DO WE HAVE SUFFICIENT EXPERTISE?

How will the study outcome change the nature of the care we provide or the health of those we serve? Do we have the capacity to make those changes? Is a human subjects study necessary? Is there a novel, important question that can only be addressed through a study. Will the sample size, sample frame, and survey methodology be robust and valld, or will the study likely involve only a limited number of people and/or a unvalidated survey instrument? Are we able to include appropriate controls?

Am I starting with a demonstrated community need (e.g. housing for people experiencing homelessness) and working backward from there? Or am I starting with my own interest (e.g. demractlogy, ophthalmology) and superimposing this on the people I intend to serve?

INTERVENTION

IS THERE GUARANTEED FOLLOW-THROUGH AND CONSISTENCY?

RESEARCH

- If the founding students graduate / move on, is there a transition plan in place or sufficient infrastructure to ensure the program persists and can outlive its founders?
 If the project leaders want to provide education or training in the community, will they provide this for a meaningful timeframe?
 Do we have sufficient resources to ensure the study is done soundly the first time? If initial research results are underperforming (e.g. low survey response rate), do we have sufficient political will and capacity to improve ongoing data collection rather than attempt to publish incomplete results?
 If providing donated medications, will these medications be re-fillable and consistently available to patients?

The project will not lose steam as founding students become busy (e.g. enter clinical clerkships), graduate, or new students transition into their leadership role.

There is sufficient commitment to improve unde performing projects or commit to repeated community engagement.

Medications/needed supplies are consistently available, preventing any possible healthcare insecurity in patients and reinforcing their trust in both the SRC and the health system in general.

WHAT ARE YOUR MOTIVATIONS FOR THIS PROJECT?

Ask yourself: would I still do this project if I couldn't publish it, put it on my CV, or "get credit" for it with a reference letter writer?

YOUR PROJECT IS READY FOR REVIEW!

WHAT ARE POTENTIAL HARMS? WHO IS HARMED?

Time and effort spent revisiting traumas and/or other lived experiences represents a legitimate cost to participants. It is not a neutral process. It becomes an unrequited sacrifice if no direct benefit offsets this cost to them.

Publishing participant input in a manuscript or poster that would provide indirect benefit (i.e. arguing for health system reform or increased funding) constitutes weak or no compensation at the level of the individual.

Sharing this information will not put the participants at risk

There are sufficient benefits to offset the harms

Referrals are high-quality and accessible, ensuring that patients stand to benefit from resources provided.

WWW.HOMELESS-HEALTHCARE.ORG WWW.HOMESCLINIC.ORG

ETHICAL EVALUATION FOR ACTIVITIES AT STUDENT-RUN CLINICS

Figure 1 A rubric for reflective action.

with a local dental clinic, a housing organisation and a non-profit that would assist him with mail services. We provided him with an address and operating hours for each.

A community needs assessment later turned up evidence that Jackson would have been turned away from the very dental clinic we sent him to. To qualify for free dental care, we learnt, prospective patients are required to first complete a health screening. Only if the screening was obtained and passed would Jackson receive an official letter that could lead to a dental appointment. Going by our instructions, he would have endured the unforgiving Texas heat—walking miles without clean socks or shoes—only to be turned away and again sent elsewhere.

Questions

- 1. What were our responsibilities in making follow-up recommendations?
- 2. Did we ultimately harm Jackson in our attempt to help?

Discussion

Underserved patients present with complex psychosocial needs that are best addressed by broad, interdisciplinary care. As a first point of contact for many of the most underserved, the task commonly falls to SRCs to facilitate these linkages.

Unfortunately, these resourcesfragmented across countless organisations—are typically scattered across the community (Iott et al. 2020; Peoples, Fang, and Buck 2022). It is a daunting task to learn and stay up-to-date with the landscape of local services, to say nothing of appreciating very real differences in service quality. Making matters worse, the COVID-19 pandemic wreaked havoc on the non-profit sector, damaging safety net services far and wide. This continues to create confusion with respect to which organisations remain afloat and which have gone under (Dzhanova 2020; FEMA 2020; Gamboa 2021). The result is that linking patients to needed services is often poorly executed—as is painfully illustrated by Jackson's story. This produces unacceptable substandard health outcomes as patients fall through the cracks.

We argue here that referring patients to a discontinued, low-quality or inaccessible service, even unintentionally, constitutes an ethical shortcoming on the part of SRCs. At the very least, it causes harm by exacerbating mistrust in health professionals and wasting the limited time and resources of vulnerable patients. We have previously discussed potential solutions to

this problem in detail (Peoples *et al.* 2023; Peoples, Fang, and Buck 2022). We extend that work here to argue that this is, in addition to lost efficacy, an ethical failure. When we take an honest look at the harms that result from uninformed advice, there is some level of moral responsibility that must be assigned for the hardships then endured by those we intend to serve. Prioritising the work to avert such hardships, then, is not merely another student project, but a moral imperative for SRCs.

Case II: dermatology specialty clinic

A student and dermatologist submit a proposal to initiate a dermatology specialty clinic that would operate under the auspices of our primary care-focused SRC. The stated mission was 'to increase access to dermatological care for people experiencing homelessness'.

Questions

1. Is a specialty clinic the appropriate intervention to meaningfully improve the health of patients?

Discussion

All individuals deserve access to specialty care that is necessary for their well-being. In the USA, there is documented need for practically every aspect of medical care among those without insurance (Seo et al. 2019). As such, a specialty clinic can seem like a promising mechanism for advancing health. There is, however, an important difference between access to specialty care and mere access to a specialist. Would adding a dermatologist improve patient outcomes beyond our existing capabilities as a primary care clinic?

First, we must consider evidence of need. While there is strong evidence to support the need for dermatological care among those with unstable housing generally, it is crucial to evaluate this evidence within the context of each SRC. Reviewing our triage logs, 16/165 (9.7%) recent chief concerns were dermatological. Of these, the majority (eg, laceration, ingrown nail, onychomycosis) could readily be addressed by our primary care physicians. Thus, while it was assumed that a specialty clinic would offer the gold standard to address unmet needs, data indicated that our SRC may not have the case volume to sustain such a clinic.

Second, managing dermatological conditions can be extremely costly. For example, the annual direct costs of 10 common immunosuppressants to treat chronic cutaneous lupus range from US\$899.31 (methotrexate) to US\$316104

(lenalidomide) (Rizvi and Chong 2022). While a dermatologist may have the medical knowledge to treat CLL, if they are relying on the same pharmacy as our primary care team—which cannot stock these drugs—they would be similarly limited. As an alternative, the proposal suggested we rely on medications sourced from 'medication samples' from pharmaceutical companies. This is likewise unacceptable. Providing medications which are inconsistently available may create a form of health insecurity for patients who come to depend on our SRC for these drugs (van Dijk, Dinant, and Jacobs 2011). Moreover, abrupt discontinuation or inconsistent dosing of prescription drugs can produce harmful side effects. Thus, if we perform invasive tissue biopsies only for care to stop prior to definitive treatment, our specialty clinic might best be characterised as medical theatre rather than medical care.

When pathology is beyond a clinic's ability to treat, the responsibility then becomes to navigate patients to higherlevel care. The proposal suggested that patients with diagnoses outside the clinic's scope would be referred elsewhere. However, the proposed clinics were far away, lacked public transportation and were unlikely to accept patients without insurance. Thus, a patient would be seen at our primary care clinic, wait 1 month for an appointment at our dermatology clinic, then simply receive vet another referral to a likely inaccessible clinic. This would only constitute a disservice to patients. Furthermore, if the specialty clinic would function primarily as a referral centre rather than a treatment centre, it is questionable what value such a clinic adds over our established primary healthcare physicians who already perform this service. If even more support is needed to navigate community resources, this is an issue that should be addressed directly. Medical specialists with limited experience navigating the complex web of healthcare for the uninsured likely would not be best suited for this task.

Finally, there is the question of scope of practice. Dermatological care involves invasive procedures such as punch and excisional biopsies—procedures which require skill and carry a non-zero level of risk. Student involvement, then, is an element that must be parsed out carefully given medicine's historical legacy of injustice towards minorities and the justified aversion of vulnerable patients to being used as 'guinea pigs' or mere tools for student learning (Bauer 2017). While we acknowledge that all healthcare

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professionals must have their 'first times', it is also worth reflecting on whether those first times should disproportionately be on the bodies of the poor, with limited agency to refuse care or seek alternative options. The proposal we received enthusiastically endorsed sending students to practice invasive interventions and did not include any discussion of scope of practice concerns, when 'first do no harm' should be fundamental to any such enterprise.

So, would the specialty clinic—as it was proposed—meaningfully improve health outcomes? Our answer is no. Early diagnosis can save lives, but only when linked to early treatment. Screening for conditions without a clear path to treatment is widely considered a form of structural violence (Shapiro 2018). Merely being seen by a specialist (without the tools to perform specialised work); offering diagnoses without treatment; offering medications that are inconsistently available; referring patients to inaccessible clinics and being practised on by students without reciprocal health benefit do not comprise a sufficient rationale for a new clinic.

What should be done, then, for patients who do not have specialised care? We decided that linking patients to established specialty healthcare services would be the most impactful role for our SRC. Therefore, we invested in developing a Health Advocate programme that trains volunteers to navigate patients to the best available local resources (Peoples et al. 2023). This programme was so successful that a modified version was adopted by Healthcare for the Homeless-Houston (HHH), a federally qualified health centre and the flagship provider of homeless healthcare services in Houston. Furthermore, we initiated a programme to distribute sunscreen to our patient population and provide education regarding skin health. In this way, we aimed to still realise the positive goals of the specialty clinic while accounting for relevant constraints.

The ultimate lesson here is *not* that specialty clinics are deleterious or unnecessary. Rather, it is that they are an extraordinarily complex piece of healthcare machinery that invoke even more complex ethical questions. There is a high standard that must be met. When weighing the decision to expand, we recommend SRCs consider the following positive goals:

- 1. Starting with *documented needs* of the SRC's patient population.
- 2. Ensuring early diagnosis will be linked to early and accessible treatment.
- 3. Ensuring new interventions will lead to improved health outcomes.

- 4. Ensuring that the desired benefits are only possible with the creation of a new clinic (rather than strengthening of existing services, as we opted to do).
- 5. Ensure appropriate scope of practice.

Case III: surveying patients on services that cannot be provided

A student proposes to conduct a needs assessment at external community organisations frequented by our patients. The survey lists a variety of specialty services (eg, cardiology, gender-transition care) and asks respondents whether they would use each service if it were available. This student knows that HOMES Clinic is unable to offer these specialty services.

Questions

 What are the harms and potential benefits of a survey-based needs assessment?

Discussion

A needs assessment describes any form of research intended to describe the needs of a specific population. They can be a powerful tool when shaping the mission of an organisation and determining directions for expansion or resource allocation. However, in our experience, they are frequently misused or poorly implemented.

No research is without cost. Even a simple survey requires time, effort and insight from respondents. Asking patients to complete surveys that they find unnecessary can erode trust and weaken future interactions. Furthermore, surveys asking individuals what they want or need serve to remind them of what they do not have. When what one does not have constitutes a basic need—such as medical care—repetitious, unnecessary reminders of this can be unsettling and emotionally damaging. As such, surveys should be used sparingly at SRCs.

This is not to say that SRCs should never conduct surveys. For example, if an SRC makes a significant change to the clinical workflow, asking patients for feedback on these changes could generate meaningful insight to improve care. The appropriateness of a survey therefore stems from consideration of both the cost to participants and the potential for change in response to the information collected. In this case, the proposed survey could not possibly effect change. Additionally, surveys for 'what patients want' are a weak form of evidence of need. Epidemiological studies, chart reviews or documentation of patient concerns will offer more compelling assessment of need with lower cost to patients.

In the end, who will benefit from a survey to 'assess needs?' Is it the patients, who are still without these services, or is it the authors, who will seek career advancement via posters or publications in a peer-reviewed journal?

Case IV: education intervention studies

A student proposes to conduct and publish a health education intervention study. The stated aims are to 'improve community knowledge' of this topic.

Questions

1. Is a study the best intervention, let alone a necessary or even appropriate one, to improve community health knowledge?

Discussion

Education intervention studies are a popular student project. At face value, the process certainly checks all the boxes: identifying a clear public health problem; involving an underserved community; creating an evidence-based intervention and disseminating the results. Closer inspection, however, reveals a litany of potential issues.

First, as already intimated, we should be sceptical that a study would be needed to ensure successful knowledge transfer every time education is provided. More importantly, though, the emphasis on creating something publishable may potentially distract from the more important task of sustainably improving community knowledge for the longterm (figure 2). This latter aim might be better met by an emphasis on longitudinal community engagement and the creation of a programme that attracts and trains new instructors to visit additional workshop sites over an extended period of time. Where is the follow through when the focus becomes centred on a one-off lecture?

Second, these studies are often fraught with methodological issues that limit their real-world utility (Carney et al. 2004; Reed et al. 2005). Even assuming one finds the curriculum and decides to adopt it for their own use, there is a high likelihood they would modify it to suit their own needs. This negates any potential validity conferred by performing a study, as the pre-test and post-test are only measures of the original curriculum and not a modified version.

Finally, while publication may increase visibility of the curriculum, it may or may

Focus is on Community Engagement



B Focus is on Conducting a Study

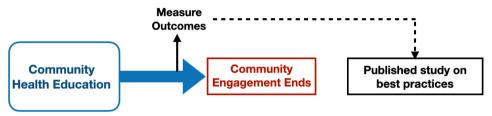


Figure 2 Different foci of interest for community education interventions. (A) When the primary goal is long-term community engagement, more attention is afforded to iterative outcome measurement and quality improvement, community participation, scale-up and sustainability, all of which directly impact the community. Studies may organically result from this work. (B) When the primary goal is a study, community engagement may be treated as a means to an end, where the act of providing health education is a process for creating data. This may result in missed opportunities for meaningful, long-term engagement. Likewise, the resulting studies may or may not directly benefit the communities who enabled their creation.

not actually lead to increased adoption and use. For example, there is little data to indicate how often others will actually use curricula found in medical journals, while there is substantial work to suggest that many studies are referenced and cited carelessly, as though they had not been read at all (Greenberg 2009; Leung et al. 2017; Mogull 2017; Pavlovic et al. 2021; Rekdal 2014). If the curriculum is published in a non-open access journal, the value that publication adds towards broader adoption and use may be even more limited.

Critically, the point here is not to argue against publication. Rather, it is to raise a more nuanced idea: we should not reflexively assume publication always constitutes a net benefit for vulnerable patients. When establishing priorities for service to disadvantaged communities, we must carefully weigh the theoretical benefits of publication (and the considerable time, effort and resources required) against the material benefits of direct community engagement. As figure 2 illustrates, the two need not

be mutually exclusive—but there is an important difference in emphasis. The ethical pitfall, then, is when the prioritisation of publishing studies leads us to divest time, resources and interest from building sustainable community interventions.

CONCLUSION

SRCs can be a powerful mechanism to promote health equity. By harnessing the skilled labour of motivated professionals and physicians-in-training, SRCs have the potential to bridge care gaps and build trust with historically disenfranchised patients; strengthen preventive healthcare, which arguably translates into social and economic impact via quality-adjusted lifevear savings (Arenas et al. 2017); to spearhead outreach to individuals outside the traditional healthcare system; to outperform conventional clinics (Liberman et al. 2011); and to train future leaders in health equity. As these case studies illustrate, however, what advances our careers in medicine may sometimes be at odds with

what advances our communities. We must carefully audit our actions, then, when career advancement can all too easily be attained through works that merely purport to serve the destitute sick without materially improving their circumstances. This is the chief ethical duty of SRCs. Upholding this duty will best promote the positive goals and impact that SRCs are uniquely positioned to offer.

Despite the richness of these questions and the importance of optimising SRC efficacy, 'little bioethical work' exists for SRCs (Vinarcsik and Wilson 2022). We suggest this is a fruitful area of future research. Furthermore, we suggest that SRCs consider including an 'ethics officer': someone to critically evaluate and ensure activities represent the best iteration of what an SRC can offer. Our rubric (figure 1) is intended to aid this process. While it is impossible to exhaustively anticipate all possible ethical dilemmas in the SRC setting, we have phrased the rubric as a series of questions for this very reason: to provoke reflection and

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autonomy rather than shoehorn 'universal truths' into a landscape ruled by context. At the heart of this work, we simply ask students to think critically about what constitutes 'benefit' and what constitutes 'harm', recognising that activities which are conventionally assumed to offer benefit may not, in fact, always do so.

Online supplemental appendix 1 provides a copy of the proposal guidelines at HOMES Clinic, a programme of HHH, which have proven to be a useful aid to students wishing to submit thoughtful proposals. Together, we hope these may offer a springboard for reflection, discussion and calibrated action for those who wish to do the necessary work of turning good intentions into good outcomes.

Acknowledgements The authors would like to thank Sanika Rane for her considerable graphic design talents in rendering Figure 1; Carlie Brown and Healthcare for the Homeless-Houston for consistent and high-quality support; Panayiotis Kontoyiannis for helpful contributions to the content of Figure 1; Vianna Quach, Dianne Wade and Alexandra Alvarez for invaluable editorial comments.

Contributors NP, JTG and DC equally conceived and wrote the manuscript. NP acts as the guarantor for this work

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests The authors have no relevant disclosures or competing interests.

Patient consent for publication Not applicable.

Ethics approval The contents of this work (including Figure 1 and the online supplemental appendix 1) were approved by the HOMES Clinic Executive Board, the HOMES Clinic Faculty Advisor and our parent organisation, Healthcare for the Homeless-Houston. This work does not contain human subjects research or protected health information. Any use of individual or patient identifiers found within are fictitious and used for illustrative purposes only; any resemblance to a real individual is purely coincidental.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement There are no data in this work.

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- ► Additional supplemental material is published online only. To view, please visit the journal online (http://dx.doi.org/10.1136/medhum-2023-012695).



To cite Peoples N, Gebert JT, Clark D. *Med Humanit* Epub ahead of print: [*please include* Day Month Year]. doi:10.1136/medhum-2023-012695

Accepted 17 August 2023

Med Humanit 2023;**0**:1–6. doi:10.1136/ medhum-2023-012695

BIBLIOGRAPHY

- Arenas, D. J., E. Lett, H. Klusaritz, and A. M. Teitelman. 2017. "A Monte Carlo Simulation Approach for Estimating the Health and Economic Impact of Interventions Provided at A Student-Run Clinic." *PLOS One* 12 (12): e0189718.
- Bauer, I. 2017. "More Harm than Good? The Questionable Ethics of Medical Volunteering and International Student Placements." *Tropical Diseases, Travel Medicine and Vaccines* 3: 5.
- Buchanan, D., and R. Witlen. 2006. "Balancing Service and Education: Ethical Management of Student-Run Clinics." *Journal of Health Care for the Poor and Underserved* 17 (3): 477–85.
- Carney, P. A., D. W. Nierenberg, C. F. Pipas, W. B. Brooks, T. A. Stukel, and A. M. Keller. 2004. "Educational Epidemiology: Applying Population-Based Design and Analytic Approaches to Study Medical Education." JAMA 292 (9): 1044–50.
- Dzhanova, Y. 2020. "Food Banks are Closing and Losing Their Workforce Because of the Coronavirus." CNBC. Available from: https://www.cnbc.com/2020/04/28/ coronavirus-food-banks-are-closing-and-losing-theirworkforce.html
- Fema.gov. 2020. "COVID-19's Impact on the Human & Social Services Sector." Washington DC FEMA. https://www.fema.gov/sites/default/files/2020-11/fema_covid-19-impact-human-social-services-sector_best-practice_11-16-20.pdf.
- Gamboa, G. 2021. "Pandemic Puts More than One-Third of Nonprofits in Financial Jeopardy." PBS. Available from: https://www.pbs.org/newshour/economy/pandemicputs-more-than-one-third-of-nonprofits-in-financialjeopardy
- Greenberg, S. A. 2009. "How Citation Distortions Create Unfounded Authority: Analysis of a Citation Network." BMJ (Clinical Research Ed.) 339: b2680.
- Hohmann, E., J. C. Brand, M. J. Rossi, and J. H. Lubowitz. 2018. "Expert Opinion Is Necessary: Delphi Panel Methodology Facilitates a Scientific Approach to Consensus." Arthroscopy 34 (2): 349–51.
- lott, B. E., C. Eddy, C. Casanova, and T. C. Veinot. 2020. "More than a Database: Understanding Community Resource Referrals within a Socio-Technical Systems Framework." In AMIA Annual Symposium Proceedings, 2020, 583. American Medical Informatics Association.
- Kern, D. E., W. T. Branch, and J. L. Jackson. 2005. "General Internal Medicine Generalist Educational Leadership Group. Teaching the Psychosocial Aspects of Care in the Clinical Setting: Practical Recommendations." Academic Medicine: Journal of the Association of American Medical Colleges 80 (1): 8–20.
- LCME. 2022. "Standards, Publications, & Notification Forms." LCME. Available from: https://lcme.org/ publications/

- Leung, P. T. M., E. M. Macdonald, M. B. Stanbrook, I. A. Dhalla, and D. N. Juurlink. 2017. "A 1980 Letter on the Risk of Opioid Addiction." *The New England Journal of Medicine* 376 (22): 2194–95.
- Lewis, J. H., O. G. Lage, B. K. Grant, S. K. Rajasekaran, M. Gemeda, R. C. Like, S. Santen, and M. Dekhtyar. 2020. "Addressing the Social Determinants of Health in Undergraduate Medical Education Curricula: A Survey Report." Advances in Medical Education and Practice 11: 369–77.
- Liberman, K. M., Y. S. Meah, A. Chow, J. Tornheim, O. Rolon, and D. C. Thomas. 2011. "Quality of Mental Health Care at a Student-Run Clinic: Care for the Uninsured Exceeds That of Publicly and Privately Insured Populations." *Journal of Community Health* 36 (5): 733–40.
- Mogull, S. A. 2017. "Accuracy of Cited 'Facts' in Medical Research Articles: A Review of Study Methodology and Recalculation of Quotation Error Rate." PLOS One 12 (9): e0184727.
- Pavlovic, V., T. Weissgerber, D. Stanisavljevic, T. Pekmezovic, O. Milicevic, J. M. Lazovic, A. Cirkovic, et al. 2021. "How Accurate are Citations of Frequently Cited Papers in Biomedical Literature?" Clinical Science 135 (5): 671–81.
- Peoples, N., M. Fang, and D. S. Buck. 2022. "Healing the Homelessness, Fixing a Broken Aid Industry, and Challenging the Status Quo: Perspectives of a Physician-Activist." Journal of Social Distress and Homelessness: 1–7.
- Peoples, N., M. Fang, P. Kontoyiannis, C. Andrews, and D. Clark. 2023. "Development of A User-Informed Social Resource Guide to Improve Identification and Management of Psychosocial Concerns: A Model for the Free Clinic Setting." *Journal of Student-Run Clinics* 9 (1).
- Reed, D., E. G. Price, D. M. Windish, S. M. Wright, A. Gozu, E. B. Hsu, M. C. Beach, D. Kern, and E. B. Bass. 2005. "Challenges in Systematic Reviews of Educational Intervention Studies." *Annals of Internal Medicine* 142 (12 Pt 2): 1080–89.
- Rekdal, O. B. 2014. "Academic Urban Legends." Social Studies of Science 44 (4): 638–54.
- Rizvi, S. K., and B. F. Chong. 2022. "Cost Minimization Analysis of Mainstay Treatments in Cutaneous Lupus Erythematous." *Dermatologic Therapy* 35 (1): e15190.
- Seo, V., T. P. Baggett, A. N. Thorndike, P. Hull, J. Hsu, J. P. Newhouse, and V. Fung. 2019. "Access to Care among Medicaid and Uninsured Patients in Community Health Centers after the Affordable Care Act." BMC Health Services Research 19 (1): 291.
- Shah, A., N. Barger, J. Ding, R. Li, K. Mahendraraj, S. Patel, and C. Pong. 2023. "Implementation of Training Protocols Addressing Equitable Care in US Student-Run Clinics." *Journal of Student-Run Clinics* 9 (1): 1.
- Shapiro, J. 2018. "'Violence' in Medicine: Necessary and Unnecessary, Intentional and Unintentional." Philosophy, Ethics, and Humanities in Medicine 13 (1): 7.
- Smith, S., R. Thomas, M. Cruz, R. Griggs, B. Moscato, and A. Ferrara. 2014. "Presence and Characteristics of Student-Run Free Clinics in Medical Schools." *JAMA* 312 (22): 2407–10.
- The Lancet. 2019. "No Health Care without Social Care." The Lancet 394 (10205): 1206.
- van Dijk, D. P. J., G.-J. Dinant, and J. A. Jacobs. 2011.

 "Inappropriate Drug Donations: What Has Happened Since the 1999 WHO Guidelines?" *Education for Health* 24 (2): 462.
- Vinarcsik, L., and Y. Wilson. 2022. "Beyond Good Intentions: Student Run Free Clinics as a Reflection of a Broken System." *The American Journal of Bioethics* 22 (3): 27–29.