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Can (And Should We Try To) Quantify The Complexity That Is Gender Inequality In Medicine?

By Jamie Wells, M.D. — August 10, 2018

By Job8 from Wikimedia Commons [1]

As much as I have loved and quietly chuckled over the many media headlines (and social media commentary) this week about a new study [2] suggesting female patients with heart attacks fare better in terms of survival when treated by female physicians as opposed to their male counterparts, I settled quickly back into my skeptical optimist reality and went directly to the primary source to review for myself what the actual study can, does and does not convey.

First, some context

It wasn't very long ago that another report deluged public discourse about a similar topic based on the work of a Harvard School of Public Health [3] team. Recognizing much of the research already published on the subject of gender inequality in medicine does not address outcomes, but rather reveals differing practice patterns between male and female physicians, that females provide higher-quality care, perform the same or better on standardized testing, are more likely to adhere to clinical guidelines as well as offer more preventive measures, follow evidence-based medicine, employ a more patient-centered communication style, to name a few [4], this academic crew sought to explore whether this favorably or unfavorably impacted patient outcomes. They determined it did, the 'why' will necessitate further study.

In December 2016, their work published in JAMA Internal Medicine [5] concluded elderly hospitalized patients cared for by female doctors (specifically internists in the hospitalist role) endured lower 30-day mortality and readmission rates than their male counterparts. (See here [3] for greater detail on their study design and results).

The authors maintain

> *"Female physicians now account for approximately one-third of the US physician workforce and comprise half of all US medical school graduates. Despite evidence suggesting that female physicians may provide higher-quality care, some have argued that career interruptions for child rearing, higher rates of part-time employment, and greater tradeoffs between home and work responsibilities may compromise the quality of care provided by female physicians and justify higher salaries among male physicians. Therefore, empirical evidence on whether patient outcomes differ between male and female physicians is warranted."*

Their findings undermine the "career interruptions" argument. An accompanying editorial written by the *JAMA Internal Medicine* editor and editorial fellow entitled "Women in Medicine and Patient Outcomes: Equal Rights for Better Work?" [6] added

> *"these findings that female internists provide higher quality care for hospitalized patients yet are promoted, supported and paid less than male peers in the academic setting should push us to create systems that promote equity in start-up packages, career advancement, and remuneration for physicians. Such equity promises to result in better professional fulfillment for all physicians as well as improved patient satisfaction and outcomes."*

The latest study on gender disparity in heart attack mortality

This recent study garnering a lot of media attention was published in *Proceedings of the National Academy of the Sciences (PNAS)*. In it, the authors conclude

> *"A large body of medical research suggests that women are less likely than men to survive traumatic health episodes like acute myocardial infarctions. In this work, we posit that these difficulties may be partially explained, or exacerbated, by the gender match between the patient and the physician. Findings suggest that gender concordance increases a patient's probability of survival and that the effect is driven by increased mortality when male physicians treat female patients. Empirical extensions indicate that mortality rates decrease when male physicians practice with more female colleagues or have treated more female patients in the past."*

While I would never wish this to be true as patient survival is really what is most important, not the age old reflexive battle of the sexes, the design of this study has flaws as it discounts a host of factors that influence survival beyond the named attending in the emergency room (eg

consideration of the team of residents or attendings, like internists or cardiologists, in and outside of the emergency room (e.g. hospital floor) who guide care). These limitations don't make the work meaningless, they just somewhat temper its significance. How rapidly a patient is identified as having a heart attack in the emergency room and stabilized is crucial to survival, but how they are managed in the critical hours beyond then plays a substantial part too. Follow-up work on the hospital course itself with respect to gender concordance would add value.

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In the end, the trend of the data collected thus far points to relevant gender disparities as well as practicing differences. But, there are profound absences to the discussion when we attempt to apply this evidence to salary discrepancies, albeit along gender or individual lines. Whether we agree or not, our society pays for what it determines is "valuable."

In the ER and hospitals, for example, payment systems are often based on RVUs (relative value units [7]) and do account for practice differences. These have traditionally created perverse incentives deeming high volume synonymous with productivity and therefore of the greatest "value." At a point, quality suffers and being comprehensive or thorough gets short-changed with patient safety most at risk as a result. Taking on the more complex patients may or may not yield the greater reward and when time is diminished there is an increase in lab testing and imaging studies. The negative chain reaction of lower quality leads to unnecessary testing, complications and overall greater expense. Being a worker-bee drone in these settings is preferred, and I would argue that can be incongruous with excellence.

Procedures have consistently been prioritized when it comes to remuneration. Thinking, albeit by the more surgical procedure performers or those in the more medical non-surgical fields, has not been as "worthy" of compensation in the medical realm. Both have tremendous value and both disciplines do a lot of it. Diminishing its value has not helped the situation.

The practice of medicine is wrought with variables and the more consequential the interaction between physician and patient, the less the chance for error. So much of the diagnosis and therapeutic plan can be garnered through a comprehensive history and physical examination. Treating medical practice like any other commodity is unwise, has not worked and has contributed significantly to job dissatisfaction and is profoundly responsible for physician burnout. Designing systems that actually encourage and support caring for patients would genuinely value quality and likely even out the playing field.

Beyond that, solving the endless existing gender discrimination, I (and pretty much every female physician I have known or encountered) have experienced, will assuredly require measures from innumerable angles. When strangers in my everyday life or during an inflight medical emergency actually believe I am a doctor, then I will know something in society has shifted. Till then, let's make sure no patient is adversely impacted and any and all genders in medical practice feel equally valued for their dedication and hard work.

Links

[1] https://commons.wikimedia.org/wiki/File:Men_and_Women_handle_risk_differently.jpg
[2] http://www.pnas.org/content/early/2018/07/31/1800097115
[3] https://www.acsh.org/news/2016/12/20/drop-mic-ladies-patients-female-docs-fare-best-10613
[4] https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2593255
[5] http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2593255
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[7] https://en.wikipedia.org/wiki/Relative_value_unit