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Getting There: Strategies To Improve Gender Equality In Pharmaceuticals And Healthcare

By **Tim Sandle**

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INTRODUCTION

Women make up the majority of the workforce in pharmaceuticals and healthcare globally (at 65%, according to global averages) (1). This proportion is above financial services (at 46%) and technology (at 26%) (2); yet the distribution of pay, other benefits, scientific standing, representation in leadership positions, and access to certain occupations, is highly disproportionate. Neither is this internal influence and authority reflective of consumer behavior, where 80% of global healthcare products purchasing decisions is estimated to be made by women (1).

Much of the current predicament concerning the representation of women in the sector is cultural and connected to the history of power. With the cultural, positions within the workplace hierarchy are reflective of wider society and, in turn, they help to reproduce social relations outside of the firm (3). With the reproduction of power, the evolution of work has led to some professions being disproportionately populated by men and others by women. The professions predominated by women tend to be lower paid (a social structure that sociologists refer to as the division of labor) (4). Central to this is power, either where access into certain professions is blocked (by professional membership) or discouraged, especially in the past; and through wages being unequally distributed for some occupational groups over others. Wage inequality often occurs under circumstances where the education and skills required to fulfill many roles are similar. Hence, the historical questions of why groups of women are generally paid less than men are not so much to do with individual misogyny but rather a reflection of institutional and social patriarchal norms intertwined with positions in the social structure (5). With pharmaceuticals and healthcare, there is a disproportionate balance in favor of men in senior roles and a disproportionate balance of women in the lower paid roles, whether this is with nursing, care assistants, pharmaceutical inspectors, cleaners and so on.

There is, nonetheless, progress being made, especially with more women occupying higher positions within the organizational hierarchy. This leads to questions concerning the extent to which this drives change downwards and whether this changes the scope of major decisions, such as which product is produced next, which markets are to be targeted and so on? This paper

discusses some of the social structures that impede progress and the examples of change, being driven through social agency.

The activities of agency lead to the question of what are the goals? Gender equality is a multifaceted concept. It can include equal pay for work of equal value; equal access to responsibilities; and work-life balance, among other outcomes (6). Moreover, how these are currently and how they might play out vary according to professional field and worker or managerial status. This alone can make it difficult for employers to implement suitable policies. It also stands that 'equality' does not equate to 'the same' since programs need to be adapted to need; hence, this may refer to equal treatment or treatment that is different. Hence addressing gender issues requires different solutions for different problems.

Nonetheless, there are effort being put in to reducing gender disparities, which needs to be acknowledged although at the same time there needs to be an understanding that there remains a considerable way to go. As an example of the importance of seeking more equal gender relations at work, the United Nations has included gender equality as one of its 17 Sustainable Development Goals (SDGs) (7). The importance of putting in place measures to counter-act the effects of gender pay and opportunity discrimination are in terms of benefits to individual companies (not least the effect of gender bias can lead to mistakes in decision making that prove counter-productive to the organization) (8) and for society overall.

With the number of initiatives have been in progress in recent years that are seeking to redress this imbalance, this paper presents measures being taken as well as considering some of the effects of gender imbalance within pharmaceuticals and healthcare.

OUTLINING THE PROBLEM

While women make up the majority of the workforce within pharmaceuticals and healthcare, there is a maldistribution when it comes to the position of many women within the occupational hierarchy (9). This leads to some problem areas.

Variations In Pay

The World Economic Forum Global gender gap report 2018 estimates that the average gender pay gap by country to be around 16%. However, these gaps are higher and widespread in health and social care sectors with around 26% in high-income countries and 29% in upper middle-income countries (10). There are two patterns at play: one is that women are generally paid less than men in general within pharmaceuticals and healthcare for work that is considered broadly equivalent (11). The second reason for this gap is due to women tending to occupy more junior positions within the organizational hierarchy (partly driven by women disproportionately entering lower-paying sectors, which is partly reflective of deeply rooted, societal biases) (12). Not only do these positions pay less well than those above them (in terms of the vertical divisions within firms), but they also often pay less well than equivalent occupations (when the organization is examined horizontally) (13). This is most clearly seen with occupations overly represented by women compared with occupations dominated by men. For example, the division of labor within pharmaceuticals continues to see more women working at the end of the production line and more men in warehouses, yet these roles invariably pay differently (14). Similar patterns are seen with healthcare assistants (predominantly women) and other support roles within healthcare systems (predominantly men). The origins of such divisions invariably date back many decades. Hence, the rewards that different jobs attract is less to do with market forces (or human capital theory) and more to do with demarcated social constructs of 'skill'. The valuation of skills, invariably made in the past by men, result in considerable wage differences between occupations. Even within a female dominant occupation, the men who enter these professions (such as nursing) tend to, in general, to be paid more and promoted faster (15).

These constructs are social phenomena in that the actual 'skill' or 'knowledge' to undertake the different roles are often very similar (16). This is often legitimized by dividing occupations into 'professional' and 'non-professional' divides, as was the historic case between doctors and nurses, nurses and midwifes and so on (17). Historically it has been in the interest of some professions to practice group closure, preventing the influx of others. This is something acute to many male-dominated professions, as a means of protecting pay and status (conflict between doctors and nurse prescribers is a case in point). This is not to infer that actors within these structures cannot contest wage outcomes, it is more that the struggles are generally greater and the ability to make significant gains more challenging the lower the group stands in the social hierarchy. Occupational segregation is often reinforced by feminine stereotypes, woman's supposed abilities and characteristics of typical-female jobs (6).

Even with jobs that are nominally the same and open to all graduates, there is a tendency in many instances to offer female applicants a lower salary than male applicants. A study conducted in Australia involving university graduates seeking employment in the pharmaceutical sector found that when salary offers are based on minimum salaries, gender differences in

estimates too place, with women offered lower wages, irrespective of whether the salary is negotiable or not (18).

Glass Ceilings In The Research Community

Taking a different area of bias, the world of pharmaceutical and medical research. Women are underrepresented in many areas of clinical trials and the effect of this has led to flaws in research programs where women have been underrepresented as subjects. This has occurred despite increasing evidence of the influence of sex and gender on pharmaceutical outcomes. This is obvious in a disease like breast cancer, yet other conditions such as osteoarthritis, which disproportionately affect women, are often under-represented by women (19). Issue also arise with health promotion and changes are required, given that women and girls all too often fail to access effective and timely treatment in low-income countries (20). In acknowledgement of this limitation, the World Health Organization now uses a gender responsiveness scale for assessing health programs (called the 'WHO Gender Responsive Assessment Scale') (21). While there have been some country specific regulatory shifts, notable gaps exist in the integration of sex and gender in pharmaceutical research and regulations continues (22). To address this, ensuring there are more women committed to gender equality in leadership and decision-making roles in pharmaceutical research and regulation is of great importance (23). In addition, stronger governance and oversight from regulatory agencies, and commitment by the scientific entrepreneur community, are required in order to create a culture of sex and gender responsive pharmaceutical research, reporting, regulation, and commercialization (24).

Making Matters Worse: Labor Substitution

There is evidence that occupations predominantly occupied by women are being driven downwards in terms of pay and status. Labor substitution operates by reallocating tasks from more highly paid staff to staff at lower grades, often by removing or adding a 'skill'. This practice has been particularly acute in healthcare, within both the US, UK, and Canada, especially with the replacement of qualified nurses with healthcare assistants. This means that so-called 'feminized' occupations (occupations with a high proportion of females) tend to be hit hardest (25). With this process, sometimes the value of the 'skill' alters in order to socially legitimize the notion of why the task can be performed by more lowly-paid workers. The consequential increase in the numbers of lower paid workers at the expense of more highly paid occupations, allows the total wage bill to be reduced. The redefinition of a grade is often associated with increasing the workload. In any given organization some tasks and skills are more substitutable than others. Technology can also be introduced to enable labor substitution, with the objective of making a 'skill' redundant or of lesser value, so that 'less skilled' (or rather, lower paid) workers can be employed in place of previously more highly paid staff. This is more attractive to the employer during times of full employment (where collective wage bargaining of unionized occupations can push wages up) (26); so, the use of technology to allow the hire of cheaper labor becomes more attractive despite the initial capital cost of the equipment. Thus, the use of technology is rarely neutral.

ADDRESSING THE PROBLEM

The above section presents a somewhat deterministic, socially structured view of wage and status disparities within pharmaceuticals and healthcare. There are, however, many examples of social agency creating change. These are considered below.

Women On The Board

More women at board level could, on paper, help to address gender disparity within pharmaceutical organizations. Currently, women make up under 30% of executive directors at the top firms. While this is a skewed proportion, it represents a change from almost universally all-male boards. However, the 30% average proportion is despite the fact that similar numbers of men and women enter the workforce with advanced degrees in life sciences and medicine, and with the aforementioned figure that women represent 65% of the workforce. Therefore, women are under-represented at board level. This has led some social scientists to use stark phrases like 'women deliver global health while men lead it' (27).

The arguments for seeking gender parity at board level are multifaceted and include improved decision making in terms of greater quality within the workplace and in ensuring that pharmaceutical product development is more reflective of the needs of society as a whole (for example in low-income countries, women and girls generally bear a bigger burden of disease than men). There is also the issue of providing role models for those thinking of joining the industry. The degree to which this happens depends on the extent that women occupy appropriate roles and the publicity associated with these roles reaches the necessary audience. There are economic factors as well. A recent study of publicly listed firms found that companies with

no women on their executive committee achieved a mean 8.9% net profit margin. In contrast, those with at least 25% women executives averaged 13.9% (28). However, the future signs are not as encouraging as they should be in 2021. An examination of 75 companies that raised series A funding (the first major investment round) found that within life sciences, the 41 companies that raised $10 million or more, 39 have only men on their boards and only two had boards where women made up 30% or more of the members (29). For established pharma companies, the proportions are better, albeit only within the 20 percent range (30).

There are many commentators who chart the slow, but progressive expansion of women serving on the executive boards of pharmaceutical companies (31). However, does it make a significant enough difference if there are more women serving on the board of pharmaceutical companies? Does a greater representation lead to changes for the general workforce? There is a likelihood that dyadic cohesion remains at the senior group-level (32), reflecting the connectedness of the senior group network which does not necessarily drive reforms below. There appears to be insufficient research by which the question of success or failure of a 'trickle down' effect can be answered (33). It does remain that the vast body of literature on gender inequality within business in general, and pharmaceuticals and healthcare specifically, is probably too focused on achieving gender equality in terms of proportion at the top of the pyramid, rather than addressing the issues of pay and conditions affecting the women who make up the majority of the lower paid jobs within the organization as a whole.

More Women In Senior Positions

Below board level, the case for more women in senior positions, other than this being equitable, is that this probably leads to better decisions being made. Some researchers have established a causal relationship between diversity and financial performance, at least in large companies where decision rights and incentives are more transparent. To make it easier for women, as well as all people from more diverse backgrounds, to enter senior management roles, homophily needs to be challenged. Homophily relates to the desire of those in more privileged positions to associate with people of similar backgrounds, views, social class, and gender. (34). As a consequence, women that are excluded from male's social network have fewer opportunities to receive information and assistance from co-workers and hence limited access to career advancement. To drive this kind of diversity an inherent change is required so that more women and under other underrepresented groups make up more senior positions within the workplace.

At the same time, there needs to be acquired change whereby corporate leaders start to behave inclusively in order to foster and encourage openness and begin to see decisions from a wider perspective in terms of the social make-up with the firm and so the firm's customers. This invariably requires a fundamental change of culture (35).

Rebalancing Academia

If academia is imbalanced in terms of gender within its structures and where certain courses are seen as more suitable 'for men', this in itself can perpetuate social norms in the world of work, especially within science and technology fields. In turn, the world of work shapes the structure and priorities of education in that the internal organization of schools corresponds to the internal organization of the workforce in its structures, norms, and values (36). Therefore, achieving the necessary equality is needed both at work and within scholastic structures.

In addition, women and other groups will not always excel as well in certain subjects, due to biases in the education system. Research finds that graduate students and postdoctoral researchers who identify as underrepresented are less likely to submit manuscripts for publication compared with their peers. One reason for this is with disadvantaged groups being less likely to feel a sense of belonging within their chosen academic pursuit (37). The sense of belonging is, according to Hoffman and colleagues, based on (38):

- Perceived peer and faculty support (how comfortable a student feels reaching out to peers and faculty for help, and whether they feel those individuals are open to helping them).
- Class comfort (how comfortable a student is asserting opinions sharing ideas in the classroom). Perceived isolation (social connectedness on a personal level).
- Empathetic faculty understanding (should difficult situations arise).

Examples of how to tackle this are found in the U.S., such as via the national non-profit organization Alliance for Diversity in Science and Engineering (ADSE). The ADSE supports, local, graduate student-run organizations that reach out to students and scientists of all ages and backgrounds and continues promoting inclusivity and diversity in STEM (science, technology, engineering and mathematics) (39). Before the age of 10 almost 80% of girls indicate an interest in a STEM career. By the

time they are 14, that drops to less than 10%. There are a host of factors that could be contributing to this from the way the subject is taught to a lack of role models to a lack of resources and tools targeted to girls. The university sector can do more as well. For instance, universities and colleges can create partnerships with progressive organizations that are working to create inclusive cultures to help make female students aware of the opportunities that exist. They can also focus on recruiting and employing more female professors in computer science courses to help overcome the stigma of being “male-dominated” while simultaneously giving female students someone to look up to (40).

A second example is FIPWiSE (Women in Science and Education), which is an initiative that was launched on 11 February 2020 on the United Nations’ International Day of Women and Girls in Science. The objective is to champion and enable women in pharmaceutical sciences and pharmacy education to achieve their fullest potential, and to attract female students and young professionals into these fields. This is across the following workstreams (41):

- Building confidence in competence.
- Acting for enabling workplace environments in science and education.
- Supporting young professional women and female students to thrive in science and education.
- Global implementation of the FIP Development Goal 10 – Equity and Equality to address equity and diversity inequalities in pharmaceutical workforce development, continued education and training, and career progression opportunities.

A third example is with coding, especially with the encouragement of school-aged girls to take up the subject. Coding is about how we communicate with computers, and it is what we use to build and run websites, apps, games, and other digital platforms. It is for this reason that many academics and employers see coding as a matter of basic literacy in the digital age. This means it is essential for young people to understand and be able to work with the technology around them. By ensuring children learn coding at a young age prepares them for the future. Coding helps children with communication, creativity, math, writing, and confidence. There are barriers to coding, stretching from an educational institution not offering coding as part of the mainstream curriculum to gender role stereotyping which can put young women off from becoming coders. Several institutions are challenging these barriers by reaching out to communities and offering training. One example in the U.S. is with The League of Amazing Programmers. The League is a U.S.-based non-profit school teaching program, aimed at young people in 5th – 12th grade. The focus is with helping to lay down the foundations for young people, especially females, to take up science and technology at a higher level and to use this as a springboard for careers in these sectors (42).

Workplace Reforms

Companies can work on the internal culture to make the workplace more inclusive and welcoming. With the earlier reference to too many women dropping out of STEM subjects or careers at any early stage, companies help to redress this by fostering an inclusive environment where women feel empowered, heard and safe. By providing mentors and internal sponsors to young female engineers, they will have greater opportunities to grow, be challenged and progress their careers. The use of mentors also helps women at work to build career resilience, coming back after setbacks and having those who understand the additional pressures that many women face in terms of balancing life outside of work (where women, in general, continue to carry out the bulk of child care and household management responsibilities) (43).

Employers can adopt changes within the workplace with the aim to establishing more inclusive job hiring strategies (44). An example is with the unbiased evaluation of resumes. Other measures include evaluations on performance criteria and designing specific mentoring programs to train and encourage females to move up to leadership positions in order to ensure gender equity in the workforce (45). Workplaces can also be enhanced by improvements to work environments, flexible work hours, day care centers, breast-feeding breaks and paid maternity leaves. These measures can provide policy requirements to drive strategies in order to improve women’s inclusion in the workforce. However, some industries, of which healthcare and pharmaceutical sectors appear to reflect, have change management problems. Here, while leaders may well understand the impediments to aspects like gender equity at an intellectual level and agree something needs to change, this change is slow and erratic. Part of the process for redressing this is with identifying what is hidden and unconscious and gets in the way. Furthermore, at all levels of the organization people need to want to change, including their own, well-established behaviors. Behavioral and attitudinal changes are shaped at locked by socialization both in and outside the workplace and these are sometimes difficult to alter.

A more inclusive workplace culture can also lead to better products (looping back to women purchasing the majority of healthcare products). One study found that a so-called “speak-up” culture, where all voices get heard and everyone feels

welcome to contribute, is crucial to unlocking women's insights at work. The research established that leaders who make sure women get equal airtime are 89% more likely than non-inclusive leaders to unleash women's innovative potential. Moreover, business leaders who were willing to change direction based on women's input were more than twice as likely to tap into winning ideas. Furthermore, leaders who made sure each female member on the team gets constructive and supportive feedback are 128% more likely to elicit breakthrough ideas.

Developing Local Strategies

It is unlikely there is a straightforward global solution to redress the position of women within the healthcare or pharmaceutical organization. Instead, understanding of local cultural and social contexts is probably necessary in order to gain the right insights of challenges women face in the workforce. From this, local strategies can be developed. An example of this is in Pakistan, where, in 2019, the National Alliance for Women in Pharmacy (NAWP) initiative was launched by the Pakistan Pharmacist Association. The main aim of this initiative is to promote gender equity within Pakistan's pharmaceutical workforce, empowering women and also promoting female leadership in pharmacy (46).

With occupational pay disparities, especially those lower down within the organization, addressing these collectively presents a better opportunity for change than with tackling these on an individual level (47). This is because of the imbalance of labor power. Hence success is more likely to be obtained within a unionized workforce, where collective bargaining is in place. In some economies, however, unionization rates are very low making this solution less realizable than it was in the past. In these cases, the role of corporate leadership in these types of organization takes on a high level of importance (48,49).

CONCLUSION

This paper has looked at some of the factors that could be used to constrict a theoretical framework to explain why gender inequity persists in pharmaceuticals and healthcare. The paper is not intended to be overly pessimistic and it places value in human agency. However, the paper does not seek to offer a developed strategy; it instead introduces the topic and explains where gender disparity exists, primarily in terms of a lack of representation at the top and due to pay inequality throughout many organizations. The paper purposefully does not look at specific companies, although it is acknowledged there are some good examples and bad examples at the extremes.

As indicated in the paper, there are many positive findings. These need to be celebrated, publicized, and reproduced. Pharmaceutical companies are, in many cases, putting greater priority on women makes sense financially and in terms of healthcare impact and by having more women in the boardroom should affect drug development and delivery strategies on the ground. Such developments should help to ensure better medical outcomes and removes some obstacles at the higher level.

Nevertheless, more needs to be done at the middle and lower levels of the organizational hierarchy so that work roles are better evaluated in terms of skills of equal value, especially between occupational groups with disproportionate gender balances, and with ending practices whereby skilled work is directed downwards, invariably to occupations where women are in the majority.

As to what to do next. Perhaps, most importantly, organizations can begin the journey towards gender equality by promoting a common culture and definition of gender equality internally, reevaluating roles and putting in place practices to positively encourage and recruit more women.

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