

Title: Gender Medicine and Compassion

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Premise

The aim of this intervention is to deal with Gender-Specific Medicine and Compassion, but before addressing the matter a premise is needed. Currently Biomedicine – the human activity aimed at healing, curing and caring – and Healthcare - the social organization of Medicine - are a “Middle-earth”, a field characterized by the “complexity”, where different stakeholders (patients, healthcare professionals, healthcare administrators, institutional/regulatory bodies, biomedical industries) confront and sometimes conflict. That is the scenario within Gender-specific Medicine and Compassion are synthetically addressed.

Gender Medicine: what is?

The concept of “gender medicine” is traditionally linked to a woman, Bernadine Healy, a medical doctor who worked at National Institutes of Health (NIH) in United States, and to her article entitled “The Yentl Syndrome” (1).

The name comes from the heroine of Isaac Singer’s short story *Yentl, the yeshiva boy*. Disguised as a man, she attends school and studies the Talmud at an all-male Jewish

school in 19th century Poland. Healy affirms: “Being ‘just like a man’ has historically been a price women have had to pay for equality. Being different from men has meant being second-class and less than equal for most of recorded time and throughout most of the world... it may therefore be sad, but not surprising, that women have all too often been treated less than equality in (several social fields, including) healthcare” (1).

Healy highlighted that, in the 1980s, much of cardiological research focused on ischaemic heart disease (IHD) symptoms in male patients; lesser attention was paid to the adverse outcomes in women with IHD. Women were also under-diagnosed and undertreated. So, she said: “Yentl syndrome pervades medicine and medical research. Women have unique medical problems. They have greater morbidity than men and are affected by more chronic debilitating illness. Although women live longer than men – by as much as seven years, on average – the quality of life of those extra years is exceptionally burdened by cancer, particularly of the breast, lung, and colon, by heart disease and stroke, osteoporosis, Alzheimer’s disease, depression and social isolation, and general frailty. These conditions, which tend to afflict women in the last third of their lives, are not the inevitable ravages of age but are in many cases highly preventable and eminently treatable. We must awaken fully to these facts and address the diseases of women as different from the diseases of men but of equal importance, even when they also affect men.” (1).

Finally, Healy showed the medical community the need for a different approach to diagnosis and treatment between sexes. Since Healey’s appeal to include women in framed clinical research protocols, progress has been made to promote gender-medicine (2-6). But before addressing this issue, what is gender medicine?

According to the definition proposed by Baggio, gender medicine is a cross-cutting dimension of Medicine, “which describes the differences within the same disease, of

symptoms, clinical evolution, drug therapy and prevention between men and women” (7).

From 1995 the World Health Organization hardly highlighted the need of great attention to women health and on the lack of studies on the differences in medicine between men and women. So, we’ve got “gender medicine”.

So, it is clear that “gender medicine” is not a separated medical specialty, but a dimension which pass through all specialties.

It’s preferable to speak about “gender-specific medicine” since all medical specialties have to do a medical training on the basis of gender differences. Moreover, the need for a social approach to gender health is needed to pick up all social weight factors that influence diseases in the two genders.

Which is the state of the art about Gender Medicine?

Briefly, the literature highlights that “women’s reactions to drugs are more difficult to monitor because of the considerable variability caused by hormonal and enzymatic activity during menarche, menstrual cycle, pregnancy, lactation, menopause, and the possible use of hormonal contraceptives. Hormones such as oestrogen and progesterone alter metabolism and consequently the pharmacokinetics and dynamics of a drug.” (8). “Sex is first and foremost a genetic modifier of disease pathophysiology, clinical presentation, and response to treatment.” as well the literature highlights “proper sex or gender consideration to evaluate disparities in drug safety and efficacy is largely absent from clinical trials” and “most current medical guidelines and protocols are not gender-specific or sex-specific.” (9).

Adverse reactions are more severe in women than men probably due to (8):

- a particular susceptibility of females for certain diseases (e.g., ventricular arrhythmias).
- the large amount of the female population of childbearing age that use oral contraceptives.
- The drug dosage is calculated for male subjects of 70 kg, in general.
- Hormonal fluctuations characterize the reproductive life of women.
- Few years ago, there was a scarcity of clinical trials in women. So, it was not possible to exactly determine whether a drug was effective and safe in women. This means that adverse events are were only picked up in the post-marketing phase of the drug.

In this regard, World Health Organization and the European Observatory on Health Systems and Policies recommended in 2009 “that more attention be given to women’s health and inviting member states to encourage and support medical and pharmacological research into the specific pathologies that affect women at all ages with three key messages:

- Data on mortality, morbidity and use of health services reveal some important differences in health experiences between women and men.
- Health systems can make important contributions to gender equality and gender equity by addressing gender in a variety of ways.
- Identifying gender inequalities and addressing gender equity are also central to good stewardship of health systems.” (10).

Policy guidelines are now in place to include women and minority groups in clinical research appropriate to the scientific question under study so that the results can be generalizable to the whole population. For example, U.S. NIH policy (11) requires that:

- Women and members of minorities and their subpopulations are included in all human subject research.
- For phase III clinical trials, women and minorities and their subpopulations must be included such that valid analyses of differences in intervention effect can be accomplished. Cost is not allowed as an acceptable reason for excluding these groups. Programs and support are supported for outreach efforts to recruit these groups into clinical studies.

Recently Gemmati et al. (2020) have provided a detailed review that includes the sex-specific manifestations of classical and less well-known diseases and the role of gender medicine in the “-omics” era.

“Gender medicine is the first step of personalized medicine and patient-centred care, an essential development to achieve the standard goal of a holistic approach to patients and diseases [...] Overall, we have to face the evidence that biological, genetic, epigenetic, psycho-social, cultural, and environmental factors mutually interact in defining sex/gender differences, and at the same time in establishing potential unwanted sex/gender disparities. Prioritizing the role of sex/gender in physiological and pathological processes is crucial in terms of efficient prevention, clinical signs’ identification, prognosis definition, and therapy optimization. In this regard, the omics-approach has become a powerful tool to identify sex/gender-specific disease markers, with potential benefits also in terms of socio-psychological wellbeing for each individual, and cost-effectiveness for National Healthcare systems. [...] Personalized healthcare must be based on evidence from targeted research studies aimed at understanding how sex and gender influence health across the entire life span. The rapid development of genetic tools in the molecular medicine approaches and their impact in healthcare is an example of highly specialized applications that have moved from specialists to primary care providers (e.g.,

pharmacogenetic and pharmacogenomic applications in routine medical practice).” (12).

Gemmati et al. conclude their article highlighting that “there is a growing body of evidence suggesting that there are sex and gender differences between clinical manifestations, disease progression, treatment efficacy and prognosis in several common or complex pathologic conditions. A number of faults and underestimations have been performed in the past by not properly considering that different sexes have different genetic, biological and psychological features, which greatly influence the natural disease course, symptoms and treatment response. As personalized medicine and pharmacogenetics are taking hold in the common medical procedures, gender medicine and omics-approaches equally have to become part of the clinical practice.” (12).

In this regard, Johnson et al. affirm that “it is also important to note that the study of sex/gender differences benefits men as much as it benefits women. Therefore, when we fail to routinely consider the impact of sex/gender in research, we are leaving everyone’s health to chance”. (13).

Compassion and gender-specific Medicine

Finally, how can compassion be defined regarding gender-specific medicine?

The meaning of compassion is to recognize the suffering of others and then take action to help. Compassion embodies a tangible expression of love for those who are suffering. And Mercy, the compassionate treatment of those in distress, is the fruit of compassion. It’s the gift given to the suffering by those living out their compassion. For instance, in the New Testament of the Bible, Jesus is often moved to mercy through compassion.

"God comes to us disguised as our lives," says Richard Rohr (14). If this is true, then what relationship can there be between gender-specific medicine and compassion? In particular, what sense can doctors, researchers, scientists engaged in gender-specific medicine have? Clearly, one must assume the difference and, at the same time, the complementarity of the masculine and the feminine. It is necessary to address the specificity of the male and female disease, its variations, its differential effects on the population and its global scale.

Perhaps we can start by looking at our lives. If Rohr is right, then the scientific, the anthropological, the spiritual and the ethical begin with reality of our anthropological structure, of our finitude, of the limits and opportunities of medicine, also gender-specific one.

So, in a religious perspective, where is God in all of this? God will not be found in denial, or in flight, or in attempts to avoid the reality of the difference between masculine and feminine. Only by truly comparing what is real, what is directly in front of them, in their lives now, clinicians can find the divine. Also by studying, addressing gender-specific medicine. Responding both with the medical practice and with the contemplation of the divine that manifests itself in man created male and female by God. Following their final term, the questions of meaning, value, and relationship that gender-specific medicine entails. For those who have the eyes to see and the ears to hear, medicine thereby might be transformed.

The only sure path is the way *in* (15). The "way in" is the way of solidarity with the sick human being, man, or woman. We all know that the sick does not merely want our sympathy. In fact, they deserve even more than our empathy. They require our compassion—our feeling with them; our accompaniment; our loving care. "Not a way out. Not a way through. But a way in. All the way in. Towards the One in whom we live and move and have our being." (15).

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