# Factors Affecting Female Academic Role Models in Higher Education in Syria: A Case Study

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**Abstract.** This research examines dimensions that might be influencing female academic role models in the higher education environment in Syria. The prior studies report a set of factors impacting female professionals in the Middle East and North African region, which are categorized at the individual, situational and socio-cultural levels. The methodology applies a case study approach. The case of Professor Wafika Zarzour is examined as an example of a female academic role model from the pharmaceutical field of study. Dr. Wafika Zarzour is a full professor and founding dean at Arab International University with remarkable achievements and years of professional work experience. The case analysis highlights a set of individual, institutional and socio-cultural factors which have influenced the experience and career success of Professor Zarzour.

**Keywords:** Female empowerment in higher education; female role models; case study approach; AIU; Syria.

#### 1. Introduction

Female leadership in organizations has become a critical requirement in the new age of the twenty-first century, which is influenced by globalization, climate change, and economic and geopolitical shifts (Daft, 2008; Dalati and Al Hamwi 2016; Dalati 2016; Dalati 2021a; Jouber 2022). The business environment of universities and educational institutions is becoming volatile, and there is a requirement for sustainable and empowering leadership (Dalati et al. 2017; Dalati 2021b; Jean, Dalati, and Al Bich 2021). Developing and sustaining female role models in organizations is a must in a world approaching equality, sustainability, and empowerment (Tlaiss and Kauser, 2010; Sidani, Konrad, and Karam, 2015; Itani, Sidani, and Baalbaki, 2011; Al Ariss and Sidani, 2016; Littrell and Bertsch, 2013; Al-Lamky, 2007; Dalati 2021a).

The current research aims to understand issues associated with Syrian female academic role models in higher education in Syria. The request to empower female academic leaders is not only contingent on the Middle East and North Africa region; rather, it is a global quest. (The World Economic Forum 2021). Concerning the status of female academic researchers, the Syria National Erasmus+ Office (2015) published a study reporting that female scientific researchers account for only 8% of the top 100 Syrian researchers. According to the UNESCO Institute for Statistics, which reports on the status of women in science, female researchers are still identified as a minority of the world's researchers (UNESCO, 2019).

	Overall Index	Economic Participation and Opportunity	Educational Attainment	Health and Survival	Political Empowerment
Western Europe	77.6%	70.0%	99.8%	96.7%	43.8%
North America	76.4%	75.3%	100.0%	96.9%	33.4%
Latin America and the Caribbean	72.1%	64.2%	99.7%	97.6%	27.1%
Eastern Europe and Central Asia	71.2%	73.5%	99.7%	97.7%	14.2%
East Asia and the Pacific	68.9%	69.6%	97.6%	94.9%	13.5%
Sub-Saharan Africa	67.2%	66.1%	84.5%	97.3%	20.8%
South Asia	62.3%	33.8%	93.3%	94.2%	28.1%
Middle East and North Africa	60.9%	40.9%	94.2%	96.5%	12.1%
Global average	67.7%	58.3%	95.0%	97.5%	21.8%
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Fig. 1: Global Gender Gap Index, Regional Performance 2021 (Source: The World Economic Forum 2021)

Even though there is an increasing request for comparative statistics across regions, there are lower percentages of women scientists at a national level. Women scientists account only for 29.3 % of the world; and 41.5% of the Arabic region, compared to

other regions that perform better scores. An examination at the national level shows variable percentages. For instance, Tunisia, which has the highest score, accounts for 55.4%, followed by Kuwait at 52.6.3%, Algeria at 47.1%, Egypt at 45.3 %, Sudan at 40 %, Bahrain at 39%, Iraq at 38%, Syria 34.9%, Oman 34.1%, Morocco 33.8%, Qatar 31.4%, Libya 24.8%, Saudi Arabia 23.2%, Palestine 22.6%, and Jordan 21.4%.

According to The World Economic Forum (2021), the Middle East and North Africa region has the largest gender gap, with approximately 40% yet to be closed. The report estimates that the progress in closing the gender gap is slow and that it will take 142.4 years to close the gender gap. Figure 1 illustrates the Global Gender Gap Index, regional performance 2021.

#### 2. Research Context of Syria

Syria is in the Middle East, nearby the Mediterranean Sea, surrounded by Turkey, Lebanon, Jordan, and Iraq. Historically, Syria is shaped by the nation's diverse demographical fabric, with various ethnic and religious groups, divisions, and subdivisions living and coexisting in a geographical, social, historical, and political environment. Syria is defined as a heterogeneous composition of ethnicities, with Arabs, Kurds, Circassians, and Turkmans. Ethnically, Arabs comprise Syria's largest group by a wide margin, accounting for approximately 90 % of the country's population.



Fig. 2: Map of Syria

The social culture of the Arabic region is defined as conservative and patriarchal, where women are expected to be obedient and subservient to social institutions and cultural norms (Hofstede, 1994; Bjerke & Al-Meer, 1993; Caldwell,2004; Littrell & Bertsch, 2013, Moghadam, 2013, Orfali et al. 2021). The social change and development started during the 1970s until recently, mainly due to the political action of modernization of Syria which has led to economic, technological, and educational advancement during the last decades. In 2011 Syrian crisis started bringing negative effects on the nation in different aspects, including the economic, political, and educational infrastructure (Dalati and Chach 2018; Dalati 2021a).

# 3. Higher Education in Syria

Higher Education in Syria is predominantly provided by the government and state. In 2001, legislation that was applied allowed for forming private universities. Public higher education institutions in Syria are state-controlled and financed. This is achieved through the ministry of higher education and the Higher Education Council. The most influential legislative reform for higher education in Syria was the presidential decree no. 36 for the year 2001, which governs the work of private universities in Syria. The other legal framework that governs higher education in Syria is Law No. 6 for the year 2006. This law governs the work of public universities in Syria and is called "The University Regulation Law." The new law gives more autonomy to universities with regard to staff appointments and promotions. The Ministry of Higher education is striving to set priorities, set plans and implement them and continue the process of modernizing of HE sectors in Syria. The prevalent organizational environment of the Higher Education sector in Syria, namely public universities, could be characterized by traditional managerial approaches with a strong bureaucratic environment, application of outdated methodologies, lack of individual recognition, lack of effective encouragement of outstanding performance, limited collaboration with international conferences and academic journals (due to political environment and sanctions), and most important a turbulent economic and political environment which goes back to the beginning of 2011, represented by a political crisis in Syria (Dalati et al., 2017; Dalati 2021a).

# 4. Theoretical Understanding of Female Role Models in the Workplace

There are potential issues that cause barriers to female advancement and career progression (Gardiner, 2005). The previous literature reports on a set of factors that are influencing women professionals in the workplace (Afiouni et al., 2019; Kalogiannidis et al., 2022; Dalati 2021a; Reynolds et al., 2018; Adler, 1993; Greenhaus & Parasuraman, 1993; Aycan, 2004; Jouber 2022). Micro-level influences include individual and demographic factors, including personality characteristics, marital and maternal status, family and work balance, and parental support (Dalati 2021a; Aycan 2004; Lobel and Clair 1992). Personality characteristics are a critical determinant of career success and leadership in the workplace (Frost & Holt, 2014).

Meso-level factors comprise situational factors, such as mentor support, organizational support, and the institution's organizational culture (Dalati and Chach 2018). Macro-level factors include socio-cultural dimensions influencing her experience and career progression. Socio-cultural dimensions comprise social culture and how women are perceived in Middle Eastern societies, as roles and responsibilities are assumed to men and women, where women are perceived to be mainly as wives and mothers taking take of the household and raising children (Littrell & Bertsch, 2013; Moghadam, 2013; Dalati 2021a).

#### 5. Methodology

This research poses the question which investigates possible factors which could be influencing female role models' experience in the higher education sector. To answer this question, the researchers investigate the prior literature and studies on women as leaders and professionals in the workplace. Throughout the literature review process, the researcher will focus on what they believe to be interesting and appropriate to the research and subject. According to Yin (1994), case studies are preferred as a method to address descriptive issues, as the researcher has little control over the events and when the aim is to focus on the phenomenon in practical life. A case study, also identified as "case history," is a robust research methodology that examines various facets of a single organization, situation, event, or personality from an in-depth perspective at a particular time phase (Cooper and Schindler, 2014; Zikmund et al., 2013). Case studies are appropriate for situations where the research is primarily concerned with understanding theories rather than hypothesis testing (Bryman 2013). A Case study methodology is applied when a researcher's objective is to examine a single individual or organization and identify aspects associated with it" (Ghauri and Grønhaug, 2010).

The next step after deciding on a case study approach is identifying potential target cases of Syrian female role models from the academic sector. A workshop was conducted on 27th March 2022, where the lead researcher posed a question to a group of participants to identify a female academic role model, they believe to be a leading academic figure. The participants identified different responses about individuals they believed to be good examples of female leaders from the higher education sector in Syria. Out of four cases and based on the majority of responses, the researchers selected a female academic from the faculty of the pharmacy at the Arab International University, Syria. The data provided for conducting the case study was based on the secondary data provided on this case and primary data based on an interview with Professor Dr. Wafika Zarzour dated 19th April 2022. A set of questions investigating factors that may have affected Professor Zarzour's professional experience were asked and the interview produced sufficient data about the case under examination.

#### 6. The Case of Wafika Zarzour

*Case narrative.* Professor Dr. Wafika Zarzour was born in 1949 to a conservative Damascene family distinguished by its interest in business and commercial accomplishments. She grew up in a patriarchal society that viewed work as more of a man's role, while a woman's role was to be a wife and a mother. Her environment did not particularly encourage a woman's academic and scientific career or ambition. She was registered as her deceased older sister, who was born in 1947, which meant she began school when she was only four years old in 1953. This didn't stop her from excelling in her studies, supported by her mother, family, and teachers. She was recognized as one of the best students throughout her school years. In 1967, Zarzour graduated from high school to start her studies at the faculty of pharmacy, where she was an outstanding student all the way until her graduation in 1972. After graduation, Zarzour wanted to continue her higher education in Europe but was not able to due to the traditions of her family at the time. This, however, didn't stop her drive to succeed. She applied as an instructor teaching the practical course in pharmacy and excelled as a teaching assistant.

Consequently, she was enrolled in postgraduate studies, including a master's degree and Ph.D., with joint Syrian – German academic supervision between Damascus University and Saarland. During this phase, she launched a clinical laboratory for medical analysis. This led her to open her own laboratory with her family's support. In 1988, she achieved her Ph.D. at the Faculty of Pharmacy at Damascus University, where she was appointed as Assistant Professor in 1989.

Following her great efforts in science and research, she was promoted to associate professor five years later in 1994 and then to full professor in 1999. During that time in 1995, she held the position of vice dean at the faculty of pharmacy for seven years. In her role, she ensured research at the faculty was to an appropriate standard and free from error. Even if this meant clashing with other professors over their research at times and creating personal problems for herself, to her, work was work, and objectivity in science surpassed emotions.

Since obtaining her Ph.D., Zarzour has not stopped her scientific research. In her career, she supervised many masters and doctoral students in the faculty of pharmacy. Through her supervision, she worked with her students on a variety of topics, such as diabetes, atherosclerosis, and genetic disease. She also gained multiple funding for research in Germany, Cyprus, and the UK. Furthermore, she received a Fulbright Scholar Award in association with the National Institution of Health (NIH) in Maryland, USA, for her research in the field of genetic science.

She worked at the center for eight months, detecting two novel genetic mutations in Chediak Higashi syndrome. The study included a four-year-old child who was a challenging aspect of her research. However, Zarzour was determined to succeed. She did not register a patent but published a scientific article about it.

Upon her return to Syria, she made financial and administrative contributions toward establishing the Arab International University (AIU), a private university in

Syria. She was appointed as founding dean of the Faculty of Pharmacy at the AIU, where she succeeded due to her previous administrative experience at Damascus University and her leadership qualities. She also received great support from the AIU general administration. For seven years as a dean, Professor Zarzour managed the faculty with firmness, equity, and equality, contributing to the academic excellence of the faculty of pharmacy and promoting a culture of fairness, equality, and female empowerment. Currently, Professor Zarzour is a consultant to the AIU president and is preoccupied with teaching and administrative work as head of the biochemistry and microbiology department. Figure 3 illustrates Professor Zarzour's career progression and advancement.



Fig. 3: Female Academic Role Model Path of Career Progression (developed by authors)

## 7. Discussion

The case examines a set of individual factors highlighting personality characteristics and the early distinction of this female individual raised and nurtured in a patriarchal society. Family support is an important distinctive characteristic, specifically the support of her mother. Cognitive and social characteristics are emphasized, including intelligence and passion for research and science enabled Professor Zarzour to excel in a male-dominated society. Institutional factors are also critical in shaping her experience, career progression, and distinction. Mentor support, international training, research networking, mobility, and scholarship are strongly critical shapers that were emphasized in the interview with the subject of analysis. Professor Zarzour strongly believes that women in academia should be self-confident, adaptable, dynamic, and flexible without compromising their principles. They should be strong to resist any attempts or pressures from men or other women to make them fail. Research can provide women with the scientific strength and experience required. Professor Zarzour is well aware of the important role a woman's social status plays in her career advancement. For example, marital responsibilities may reduce her productive capacity. In this case, family support is essential for success. Professor Zarzour herself received a lot of support from her parents. She also believes that travel can help shape a woman's personality and build her strengths. It can open her eyes to different cultures and customs, which in return can expand her horizon and worldview.

According to her speech at a conference conducted at Princess Somaya University,

professor Wafika Zarzor confirmed three points: first is her attitude toward her work and honor after 17 years of hard work, being the first and only woman amongst 25 male cofounders of Arab International University (AIU) which was established as one of the leading private universities in Syria in 2005. Second, being the first founding dean to establish a new faculty of pharmacy from A to Z at AIU, of course with very good teamwork at that time, including her, adding that she felt proud of that since it was a huge dream of hers, and it being her success story that she'll always remember proudly. Third, the support and encouragement for female academics that the Arab International University offers, as she declared at the conference:

"In this perspective, we have responsibilities to our students, particularly our female students. We have to create distinctive educators and professionals to build a new generation of our Syrian future, and really, these are our hopes."

Figure 4 illustrates an analysis diagram depicting features and causes that impact the professor's Zarzour career path and progression. These dimensions highlight the importance of childhood and early distinction at elementary levels and family support from her mother, who has always supported and encouraged her to excel and aspire to distinguished education levels and career success. Mentor support was also a positive factor in her distinguished academic character and performance. International training and mobility also played a critical role in making and progressing her academic career success and distinction.



Fig. 4: Case Analysis Diagram (developed by authors)

### 8. Conclusions

This case examines a Syrian Female Role model in Higher Education and a set of factors influencing and shaping this individual's experience and career path. Women in Syria still experience social and work-related barriers which hamper women's economic and political progression, resulting in insignificant representation in the decision-making aspect. However, the case of Professor Dr. Wafika Zarzour proved that female leadership and distinction start at the individual level, highlighting the importance of family and mentor support. Professor Dr. Wafika Zarzour is a role model who overcame many obstacles that a conservative society might impose on women. With her determination, passion, flexibility, and hard work, she achieved academic excellence and outstanding academic career success.

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