

Women leadership barriers in healthcare, academia and business

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Abstract

Purpose: This paper maps the barriers to women leadership across healthcare, academia and business and identifies barrier prevalence across sectors. A Barriers Thematic Map (BTM) with quantitative logic and a prevalence chart have been developed, aiming to uncover inequalities and provide orientation to inclusion and equal opportunities strategies development within different working environments.

Design/Methodology/Approach: A systematic literature review method was adopted across five electronic databases. Rigorous inclusion/exclusion criteria were applied to select relevant publications, followed by critical appraisal of eligible articles. The geographical target was Europe with the time range for publications spanning the period from 2000 to 2015. Certain exceptional international studies were, also, examined. The findings were analyzed using a qualitative meta-summary method to identify key themes and formulate hypotheses for subsequent research.

Findings: Twenty-six barriers were identified across the aforementioned sectors. A high degree of barriers commonalities was identified, with some striking differences between the prevalence of barriers across sectors.

Research limitations: The results of this study may need further research and validation using statistical methodology given the knowledge base gaps regarding the range of barriers and the differences in the prevalence. Bias and interpretation in reporting anchored in different theoretical frameworks may also be further examined. Additional variables such as ambiguously stated barriers, sectors' overlapping, women's own choices, cultural and educational background, implications emerged from economic and migration crisis implications may also been explored.

Practical implications: Women's notable and persisting underrepresentation in top leading positions across sectors reflects a critical drawback towards organizational and societal progress in terms of inclusion and balanced decision making. Practice related blind spots may need to be further supported by specific policies.

Originality/Value: The comparative nature of barriers to women leadership across three sectors allows the reader to contrast the differences in gender inequalities and inclusion challenges in healthcare, academia and business. The authors draw attention to degrees of barrier prevalence that have been under-studied and deserve to be further explored. This gap in knowledge extends to policy highlighting the need to address the gender equality and inclusion challenges differently within different working environments.

Keywords: gender, equal opportunities, inclusion, women leadership barriers, healthcare, academia, business, thematic map, prevalence

Paper type: Research paper

Introduction

Women's participation in the workforce has grown over the last 20 years reaching 63.5 % across European Union (EU-28) (*Eurostat*, 2015). However, women are underrepresented in top leadership positions, with less than 16.6 % achieving board level positions (European Commission, 2013). A structural weakness identified by the EU Commission is that employment rates across Member States are still significantly lower than in other parts of the world, with only 63% of women in work compared to 76% of men (European Commission, 2010). The European Parliament (2015) stated that gender mainstreaming constitutes an essential factor for the achievement of a sustainable and inclusive society. The European Institute for Gender Equality (EIGE, 2015) argues that twenty first century needs for smart, sustainable and inclusive growth require higher gender equality scores. The United Nations (UN) included gender equality and the empowerment of women in the sustainable development goals (SDGs) (Goal No 5) for the 2030 Agenda, on the grounds that gender inequality adversely impacts upon development outcomes for the society as a whole (World Health Organization (WHO), 2015). The World Economic Forum (2014) quantifies the magnitude of gender-based disparities holding them responsible for undermining the long-term competitiveness of the global economy. Gender equality has also been identified as a precondition for the full enjoyment of human right by women, with unequal treatment and discrimination of women representing a gross and frequent violation of basic human rights (European Parliament, 2015, WHO 2015, World Economic Forum, 2014).

Subsequently, the new framework for gender equality and the empowerment of women (European Commission, 2015a) has been developed with indicators around four pillars including: economic and social empowerment, strengthening voice and participation and shifting institutional culture. Nevertheless, the effort to address the gender equality challenge may fall behind should a comprehensive approach to address gender equality and inclusion barriers not be deployed.

Thus, the Global Gender Gap Report (World Economic Forum, 2014) and EU Progress Report (European Commission, 2012) examine barriers existing in relation to women leadership such as work/life balance, gender bias, stereotypes, lack of confidence and equal access to opportunities. In addition, the G7 Summit Report (2015) described in-depth such career hindering factors including: non-friendly corporate environment, glass ceiling,¹ lack of mentoring, adequate networking and societal culture. These reports evidence that gender inequalities have not yet been explored in the same depth concerning such sectors as healthcare, academia and business.

Although there is a sound body of literature exploring the barriers encountered by women leaders and aspiring women leaders, there is hardly any evidence related to the comprehensive

¹ "Invisible barriers based on prejudice that limit the advancement of women to higher positions in their career paths". (European Parliament, 2015, p. 13)

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3 evaluation of barriers to gender equality, inclusion and their potential prevalence across these
4 three sectors bearing in mind their impact on global economy.
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7 Therefore, the authors undertook a systematic literature review, summative content analysis and
8 meta-summary methodology on barriers to women leadership in healthcare, academia and
9 business, aiming to conduct a comprehensive barrier mapping resulting in a barriers thematic
10 map (BTM) with quantitative logic and a prevalence chart to showcase the varying degrees of
11 barrier prevalence across three sectors: healthcare, academia and business.
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14 **Background**

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16 Considered separately, each of the sectors in question has its characteristics and intricacies which
17 add to the body of knowledge on the barriers confronting women in their quest for advancement
18 in leadership roles.
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21 *Healthcare*

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23 Women leaders in healthcare remain significantly underrepresented in top leadership positions,
24 even though they represent the vast majority of the specialized healthcare workforce (Bismark et
25 al., 2015; Fontenot, 2012; Hopkins et al., 2006; Hoss et al., 2011; Lantz, 2008). Out of the global
26 healthcare workforce, 75% are women, but only 38% hold top positions (Just actions, 2015). In
27 the healthcare provision sector, women leaders represent only 18% of hospital CEOs and 14% of
28 healthcare boards of directors (Hauser, 2014), whereas when examining clinical leadership we
29 find that only 15.9% have reached top level positions (Newman, 2011). Fjeldsted (2013) argues
30 that although women doctors bring excellent qualities and results into medical services, yet the
31 talent pipeline of women medical and clinical leadership needs to be further enhanced and
32 supported (Hauser, 2014, Newman, 2011). The main barriers held responsible for gender
33 equality in this sector include the triple burden of domestic, clinical and leadership roles, which
34 result in higher burnout rates, poor career management (Sexton et al., 2014), gender-related
35 stereotypes, unequal career opportunities, and gender-related pay gap (Newman, 2011).
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42 *Academia*

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44 Similar factors affect women leaders in top academic positions, with a range of academic office
45 held by women ranging from 11% to 40% (European Commission, 2015b) taking into
46 consideration that the proportion of women in top leading positions varies across countries and
47 institutions. Whereas women represent 59% of the graduate pool within the EU-28, the number
48 of women drops to 18% when it comes to the pool of academics holding full professorship at
49 universities (European Parliament, 2015). The Netherlands Organization for Scientific Research
50 (2013, p.5) states that less than 15% of full professors in the country are women and this
51 percentage gets lower when examining the inflow at the level of assistant professors. Existing
52 literature (Madsen, 2010; McTavish and Miller, 2009; Young, 2004), addressing the gender-
53 related imbalance on higher academic echelons, argues that career advancement via the academic
54 pipeline has been marked as slow due to unconscious, gender-related biases resulting in women
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3 marginalization and devaluation (Carnes et al., 2008). In addition, male friendly organizational
4 practices with gender inequality impact (McTavish and Miller, 2009) along with the lack of
5 development of leadership skills (Acker, 2010; Kodama and Dugan, 2013; Madsen, 2012) have
6 also been identified as key factors contributing to in gender disparities within academic settings.
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9 10 *Business*

11 There is ample evidence documenting the gender-related leadership profile in the business arena.
12 The Global Gender Parity Group, a multi-stakeholder community of business leaders within the
13 World Economic Forum, states that gender equality is a business imperative (World Economic
14 Forum, 2014); the G7 Report 2015 (p.58) concurs, echoing conclusions and highlighting the
15 same priority. Even though gender gaps progressively narrow, women still represent a minority
16 on corporate boards. The Gender Equality Index, a composite indicator in the area of power,
17 reaches an average 16% in the EU-28 for 2012 (The Gender Equality Index Report, 2015, p.57).
18 Despite the fact that women account for approximately 59% of tertiary education graduates, their
19 proportion in top-level business decision-making is limited, with only an average of 13.7% of
20 board seats with only 3.4% of chairs or presidency being held by women among the largest
21 publicly listed companies in the European Union (European Commission, 2012, p. 12). Male
22 predominance in boardrooms is a global reality in United States companies too, with women
23 representation in the boards of the largest companies reaching only 15.7%, while in Australia this
24 percentage is pushed further down to 10,9%, and in Canada to 10.3% (European Commission,
25 2012, p.12, Fig 5).
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33 The 2012 EU Progress Report acknowledges a positive increasing trend, albeit at a non-
34 satisfactory pace, since European Union's competitiveness requires a more balanced
35 representation of women to contribute to an overall enhanced economic performance, upgraded
36 corporate governance and effectiveness, mirroring the market and leading to better use of the
37 talent pool. In 2013, Patel suggested that the development of women leadership has a strong
38 business value in terms of strengthening the economy with an estimated, women-generated
39 income of around \$18 trillion globally in 2014, which may be double the combined Gross
40 Domestic Product (GDP) of China and India (as reported by Silverstein & Sayre in *The Female*
41 *Economy*, 2009a, p.48), improving corporate performance and creating their own wealth. The
42 recently published McKinsey Global Institute Report claims that gender parity may contribute
43 \$28 trillion to global economic growth by 2025.
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50 **Theoretical and conceptual considerations**

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52 Social constructivism (Crotty, 1998) provides an overarching epistemology for the study which
53 aligns with the Article 3c of the Istanbul Convention (Council of Europe, 2011) stating that
54 "Gender shall mean the socially constructed roles, behaviors, activities and attributes that a given
55 society considers appropriate for women and men"; in contrast to "sex" referring to genetic and
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3 biological characteristics defining humans as male or female (UN Training Center, 2016). The
4 researchers recognized the nature of knowledge is non-objective and understanding of the issues
5 of gender through multiple subjective realities formed into working definition (Teddlie &
6 Tashakkori, 2003). The adoption of a definition of gender mainstreaming from the United
7 Nations therefore being adequate to support the review “the process of assessing the implications
8 for women and men of any planned action, including legislation, policies or programmes, in all
9 areas and at all levels (Economic and Social Council of the United Nations (ECOSOC), 1997).
10 This definition constitutes a basis for making women’s as well as men’s concerns and
11 experiences an integral dimension of the design, implementation, monitoring and evaluation of
12 policies and programmes in all political, economic and societal spheres so that women and men
13 benefit equally and inequality is not perpetuated since “the ultimate goal is to achieve gender
14 equality” (ECOSOC, 1997).
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20 For the purposes of this study, the authors adopted the operational definitions related to the three
21 investigated sectors from the United Nations' International Standard Industrial Classification
22 (2008). Healthcare is described as “generally consisting of hospital activities, medical and dental
23 practice activities”, and "other human health activities" (p. 252); academia as “provision of
24 tertiary education” (p. 249) and business is understood as “enterprise determined by the added
25 value generated by its constituent units” (p. 31); the business added value feature is adopted to
26 avoid confusion with potential overlap of healthcare and academia activities.
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31 **Methods**

32 Using a multi-methods approach to validate the findings (Guba & Lincoln, in N.K. Denzin
33 & Y.S. Lincoln (Eds.), 1994), a systematic literature review method was used to “summarize the
34 body of knowledge on a particular topic” (Aveyard, 2014, p. 48) and provide the full picture
35 based on existing evidence. The protocol for the search and extraction was supported by a
36 further multi-methods approach to analysis that validated the findings (Guba & Lincoln, in N.K.
37 Denzin & Y.S. Lincoln (Eds.), 1994) to develop a barriers thematic map across the explored
38 sectors.
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43 Rigorous search criteria were used (see below Selection criteria section to retrieve and select,
44 critically appraise and synthesize the relevant articles included. The main aim of this process was
45 to address the effort of developing a barriers thematic map (BTM) with quantitative logic and a
46 prevalence chart. The findings of the search were further analyzed using summative content
47 analysis. Two researchers, SK and KC, conducted the literature review over a period of nine
48 months (October 2015 to June 2016) and in two parts. During the first part, research was focused
49 on women leadership in healthcare, academia and business and during the second part on women
50 leadership and barriers in healthcare, academia and business. In the second part the researchers
51 mapped the prevalence of each barrier across targeted sectors by calculating the times each
52 barrier was reported upon to design and populate a quantitative thematic map. The first part is a
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3 traditional systematic review process utilizing Cochrane protocols² as presented in the following
4 PRISMA³ study flow diagram (Moher et al., 2009) summarizing the search strategy (Fig 1).
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8 The second part followed the qualitative meta-summary method with quantitative logic
9 calculating the effects of each barrier on the basis of its frequency (Sandelowski et al., 2007).
10 Meta-summary is a particular approach that can be used to integrate qualitative findings from
11 several studies. It is often performed when the qualitative findings to be included in the research
12 study are evaluated by the researchers to be in the form of “summaries” of qualitative findings as
13 synthesized data as described by Sandelowski and Baroso (2003). In this study, the findings are
14 judged to be “summaries” of qualitative data; hence, the meta-summary method was deemed
15 appropriate.
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21 **Fig 1:** PRISMA flow diagram indicating articles’ selection for systematic review of barriers to
22 women leadership in healthcare, academia and business.
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26 *Search strategy*

27 The review question developed was – “What are the barriers to women leadership across
28 healthcare, academia and business?” –used to identify common and different barriers to women
29 leadership. Five electronic databases (Google Scholar, PubMed/Medline, Cochrane Library,
30 Web of Science and Emerald) and ten websites of key organizations (European Commission –
31 Directorate General for Justice, European Institute for Gender Equality, European Parliament,
32 G7 Germany: The Schloss Elmau Summit, Standing Committee of European Doctors, The
33 World Bank, Just Actions Organization, Commonwealth Secretariat’s Report, McKinsley Global
34 Institute, The Netherlands Organization for Scientific Research) were searched. The database
35 search used various combinations of key words: “women leadership”, “barriers”, “complexities”,
36 “interactions”, “healthcare”, “academia”, and “business”. The term “barriers to women
37 leadership” was often used interchangeably with “complexities” or “interactions”. For the
38 purpose of this study, the term “barriers” to women leadership was used with the meaning of a
39 “concrete wall, visible or invisible” (Eagly & Carli, 2007), towards top leading positions. Grey
40 literature⁴ was searched for nine months using snowballing techniques (Streeton et al., 2004)
41 including websites, and reports from agencies and organizations specialized in each domain.
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50 ² The Cochrane protocol is a plan or set of steps to be followed in a study. A protocol for a systematic review should describe the rationale for the
51 review; the objectives; and the methods that will be used to locate, select and critically appraise studies, and to collect and analyze data from the
52 included studies. <http://community.cochrane.org/organizational-info/resources/faqs#who-is-cochrane>

53 ³ Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). www.prisma-statement.org

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55 ⁴ The Fourth International Conference on Grey Literature (GL '99) in Washington, DC, in October 1999 defined grey literature as follows: "That
56 which is produced on all levels of government, academics, business and industry in print and electronic formats, but which is not controlled by
57 commercial publishers." <http://www.greylit.org/about>

Selection criteria

Articles were eligible for inclusion/exclusion based on the following rigorous criteria: Inclusion criteria: articles (1) were published between 2000 and 2015; papers published previously to this period were considered old and of no interest to this study; (2) were published in English; (3) a title and an abstract were included; (4) were research studies, reviews or reports. All identified articles were initially assessed based on their title and abstract. A second screening was performed for final eligibility by retrieving the full text. The geographical spectrum of the search was Europe-wide along with some exceptional international studies.

Exclusion criteria: articles (1) were related to women leadership in politics, military, police and religion; and (2) not representing original research and/or reporting thereof, rather, papers in which authors were reviewing or representing a direct reference to a book or book chapters

Data analysis

A qualitative meta-summary method, including extraction and grouping of findings into thematic content categories, was adopted in order to produce a thematic map with quantitative logic. It is important to note that, in most cases, reporting was done in a manner that necessitated a process of “ungrouping” the data across sectors and themes. Therefore, this approach was deemed the most appropriate given the data were often indiscriminately presented in a large body literature related to researched three different sectors. Additionally, data were scanned in reverse to match thematic tags across sectors, to ensure themes per sector had not been missed, given this more general character of reporting or the terminological heterogeneity of reporting. The thematic map with quantitative logic was used to calculate the frequency of effect size for each thematic content category findings as a validity indicator and to help determine which topics were most relevant for formulating hypotheses for subsequent research (Sandelowski et al., 2007). Also, differences were found on conclusions regarding key themes, given the complexity of the topic and the different background of researchers examining this topic. For example, some studies argue that the lack of “role model” barrier is a key drawback in women leadership advancement, whereas other studies support the fact that “role model” affects women leadership disproportionately (Fletcher, 2007; Ridgeway, 2001). The researchers selected and synthesized such findings to elicit deeper nuanced understanding regarding the topic of interest.

Findings

Two researchers, SK and KC, conducted the search independently and compared their findings. A total of 7499 articles were retrieved including ten reports were also retrieved through grey literature search. After excluding the non-eligible articles based on their title and abstract, a total of 1329 articles were screened and approved based on their title and abstract. The large volume of articles not classified as eligible referred to barriers in an indirect and/or unclear manner in respect to this study’s objectives. Articles were classified per sector. Four hundred and twelve articles (412) were eligible for a second screening for healthcare sector, 363 articles for academia and 554 articles for business sector. Following further abstract screening, and after duplicate

removal, 51 articles were selected as eligible for full text retrieval and screening for healthcare sector, 147 articles for academia and 223 articles for business sector.

The final eligible articles were further grouped and analyzed per sector and twenty-six barrier themes, as reported, identified and/or listed in the reviewed articles. The same two researchers were coding texts in an extraction frame in Excel spreadsheets searching for prevailing barriers and subsequently registering where every barrier was clearly recorded with information as reported per article, and including author(s), publication date, and journal. When the term “gender” was interchangeably used with the term “sex” (e.g. “sex bias” and “gender bias”), article eligibility was assessed on the basis of the article’s approach to gender, i.e., whether it considered gender to be a socially constructed characteristic (UN Training Center, 2016). The researchers compared their interpretations on an ongoing basis. Disagreements were resolved by discussing interpretations until reaching consensus (Bowling, 2014). The barriers were assigned to sectors according to the visual representation of Table 1. In total, 26 barrier categories were identified: 22 in healthcare, 21 in academia and 25 in business.

The frequency to which a given barrier was mentioned in the articles was calculated and summarized; a barriers thematic map (BTM) with quantitative logic was produced in order to calculate the effect sizes of each barrier per sector based on its frequency. The prevalence of each barrier was then calculated. The higher the frequency of a particular barrier, the greater its frequency was considered to be (Barnett-Page & Thomas, 2009).

Results

The name given to each barrier, out of the 26 identified, was generated from the articles reviewed by the researchers; they used the term selected as a “theme” identified for the purpose of the study. The themes identified are mapped below (Table 1). The themes were then grouped per sector, and then checked again within literature. Twenty-two (22) barriers were identified in healthcare, 21 barriers in academia and 25 in business (Table 1).

Table 1: Barriers Thematic Map (BTM) to women leadership in healthcare, academia and business

	Barriers	Healthcare	Academia	Business
1	Age ⁵	-	-	✓
2	Lack of career advancement opportunities ⁶	✓	✓	✓

⁵ “Significant gender difference ...and career barrier” Pfister & Radtke, 2009

⁶ “Unequal access to research positions, funding, publishing and academic awards and are also affected by rigid criteria for promotion and recognition and lack of funding or suitable policies to support them” Report on women’s careers in science, universities and glass ceiling encountered. European Parliament, 2015, p. 6

3	Culture ⁷	✓	✓	✓
4	Family (espousal) support ⁸	✓	✓	✓
5	Gender bias (discrimination) ⁹	✓	✓	✓
6	Gender gap ¹⁰	✓	✓	✓
7	Gender pay gap ¹¹	✓	✓	✓
8	Glass ceiling ¹²	✓	✓	✓
9	Glass cliff ¹³	✓	✓	✓
10	Isolation ¹⁴	✓	✓	✓
11	Lack of executive sponsor ¹⁵	-	-	✓
12	Lack of flexible working environment ¹⁶	✓	✓	✓
13	Lack of confidence ¹⁷	✓	✓	✓
14	Lack of mentoring ¹⁸	✓	✓	✓
15	Lack of networking ¹⁹	✓	✓	✓
16	Leadership skills ²⁰	✓	✓	✓
17	Personal health ²¹	✓	✓	✓
18	Queen bee syndrome ²²	✓	-	-

⁷ “Cultural and institutional barriers that generate direct or indirect discrimination against women in scientific careers and decision making” Report on women’s careers in science, universities and glass ceiling encountered. European Parliament, 2015, p. 7

⁸ “Sources of support cited included partners, other family members, and childcare” Bismark et al., 2015, p. 6

⁹ “Societies often perceive some professions as being made for male and some for female” Report on women’s careers in science, universities and glass ceiling encountered. European Parliament, 2015, p. 14

¹⁰ “Women are under-represented at higher hierarchical levels, even in sectors where they represent a majority” Report on women’s careers in science, universities and glass ceiling encountered. European Parliament, 2015, p. 13

¹¹ “Unequal pay for equal work... or work of equal value” Report on women’s careers in science, universities and glass ceiling encountered. European Parliament, 2015, p. 15

¹² “Invisible barriers based on prejudice that limit the advancement of women to higher positions in their career paths” Report on women’s careers in science, universities and glass ceiling encountered. European Parliament, 2015, p. 13

¹³ “Female leaders are more often assigned to risky, precarious positions, with few material and social resources”, Ellemers, 2014, p.50

¹⁴ “predominance of ‘old boys clubs’, inflexible corporate cultures and male dominated leadership teams that do not support or enable women to move into comparable leadership roles” O’Neill & Boyle, 2011, p.3

¹⁵ “lack of executive sponsorship to have had diversity training and specific capabilities to effectively mentor women executives” O’Neill & Boyle, 2011, p.3

¹⁶ “Many taken-for-granted organizational features reflect men’s lives and situations, making difficult for women to get on and stay” Ely et al, 2011, p.12

¹⁷ “Self-doubt,, underestimating personal capabilities”, Bismark et al, 2015, p.4

¹⁸ “Limited access to capable mentors”, Elmuti et al, 2009, p.171

¹⁹ “informal networks can shape career trajectories by regulating access to jobs; channeling the flow of information and referrals; creating influence and reputation; supplying emotional support, feedback, political advice and protection” Ely et al, 2011, p.13

²⁰ “Leadership programs ... to address the particular challenges women face when transitioning to more senior leadership roles.” Ely et al, 2011, p.16

²¹ “devalue and marginalize women and issues associated with women, such as their health” Carnes et al., 2008

²² “the reluctance of successful females to support other women”, Ellemers, 2014, p. 50

19	Race discrimination ²³	✓	✓	✓
20	Lack of role model ²⁴	✓	✓	-
21	Sexual harassment ²⁵	✓		✓
22	Lack of social support ²⁶	✓	✓	✓
23	Stereotypes (male dominated culture, negative organization environment) ²⁷	✓	✓	✓
24	Limited succession planning ²⁸	-	-	✓
25	Tokenism ²⁹	-	✓	✓
26	Work/life balance ³⁰	✓	✓	✓

Researchers calculated the frequency of each barrier, namely the number of times a given barrier was mentioned in the literature explored, and produced the barriers thematic map (BTM) based on quantitative logic (Table 2). Quantitative findings of varying degrees of barrier prevalence are presented both on arithmetical and percentage forms to facilitate interpretation, ensure accuracy and lend validity.

Table 2: Barriers Thematic Map (BTM) with quantitative logic (arithmetical and percentage prevalence) to women leadership in healthcare, academia and business based on the systematic literature review findings

Women’s Leadership Barriers	Arithmetical frequency			Percentage prevalence		
	Healthcare	Academia	Business	(%) Healthcare	(%) Academia	(%) Business
Gender gap	38	97	117	12%	12%	10%
Lack of career advancement opportunities	40	85	82	12%	10%	7%
Stereotypes	33	70	134	10%	8%	12%
Work/life balance	28	82	109	9%	10%	10%
Lack of mentoring	32	87	72	10%	11%	6%

²³ “Underrepresented groups found themselves at a competitive disadvantage”, Lightfoot et al., 2014, p. 3

²⁴ “The historical and contemporary achievements of women in science and technology, entrepreneurship, and decision making positions” Report on women’s careers in science, universities and glass ceiling encountered. European Parliament, 2015, p. 8

²⁵ “an unwelcome behavior of sexual naturethat if allowed to continue could create a hostile work environment for the recipient”. www.un.org/womenwatch/osagi/pdf/whatishh.pdf

²⁶ “Resistance in culture of female leadership.... (non) adoption of new cultures and social norms” Elmuti et al, 2009, p. 5

²⁷ “habitual privileging of stereotyped ‘maleness’ as the only credible context for leadership, created a heavily-gendered work environment” Bismark et al., 2015, p. 5

²⁸ “actions are lacking such as succession plans that focus on a concrete plan for development of women for these (top echelons) positions” McDonagh et al., 2014, p. 4

²⁹ “one woman or two women (a few tokens) to at least three women (directors) (consistent minority), Torchia et al., 2011, p. 299

³⁰ “The need to successfully reconcile professional and family obligations” Report on women’s careers in science, universities and glass ceiling encountered. European Parliament, 2015, p. 9

Lack of flexible working environment	24	80	71	7%	10%	6%
Gender bias	18	57	87	5%	7%	8%
Lack of confidence	23	39	35	7%	5%	3%
Leadership skills	16	41	39	5%	5%	3%
Lack of networking	16	28	29	5%	3%	3%
Glass ceiling	10	17	52	3%	2%	5%
Glass cliff	12	14	27	4%	2%	2%
Culture	5	25	68	2%	3%	6%
Gender pay gap	4	30	42	1%	4%	4%
Race discrimination	3	15	57	1%	2%	5%
Lack of social support	7	23	44	2%	3%	4%
Personal health	8	11	13	2%	1%	1%
Family (espouse) support	4	13	12	1%	2%	1%
Lack of role models	2	5	0	1%	1%	0%
Sexual harassment	2	0	1	1%	0%	0%
Queen bee syndrome	3	0	0	1%	0%	0%
Tokenism	0	4	7	0%	0%	1%
Age	0	0	6	0%	0%	1%
Isolation	0	2	10	0%	0%	1%
Lack of executive sponsor	0	0	2	0%	0%	0%
Limited succession planning	0	0	2	0%	0%	0%
TOTAL	328	825	1118			

To provide a full overview of the high degree of barriers commonalities and varying prevalence to women leadership across sectors, a chart was developed (Fig 2).

Fig 2. Barriers prevalence to women leadership in healthcare, academia and business as resulted from the selected articles

The prevailing barriers identified across healthcare, academia and business were gender gap (12% -12% -11%); lack of career opportunities advancement (12% - 10% - 7%); stereotypes (10% - 8% - 12%); work/life balance (9% - 10% - 10%), and lack of mentoring (10% - 11% - 6%), lack of flexible eworking environment (7% - 10% - 6%). Of the 26 identified barriers, 4 appear in two sectors interchangeably (lack of role models in healthcare / academia, sexual harassment in healthcare / business, tokenism and isolation in academia / business), 3 barriers are encountered only in business sector (age, lack of executive sponsor, limited succession planning), whereas the “queen bee syndrome” barrier emerges only in healthcare sector.

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3 All barriers prevalence presents irregularity since no barrier reflects the same prevalence degree
4 across three sectors. The high prevalence a barrier shows in one sector does not appear to the
5 other two. For example, stereotypes is the most important barrier in business (12%), whereas
6 gender gap and lack of career advancement are the most important barriers in healthcare (12%);
7 gender gap presides also in academia (12%) followed closely by lack of mentoring (11%).
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11 The prevalence fluctuations of highly prevailing barriers across healthcare, academia and
12 business is presented below (Fig. 3)
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15 **Fig. 3** Differences in prevalence of highly prevailing barriers* across sectors

16 *those presenting a degree of 10% prevalence at least in one sector
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20 Same irregularity demonstrate medium prevailing barriers across healthcare, academia and
21 business such as luck of confidence (7% - 5% - 2%), glass ceiling (3% -2% -5%), race
22 discrimination (1% -2% -5%) (Fig. 4) and low prevailing barriers as well such as lack of role
23 models (1% -1% -0%), lack of family (espouse) support (1% -2% -1%) and personal health (2%
24 -1% -1%) (Fig 5)
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28 **Fig. 4** Differences in prevalence of medium prevailing barriers* across sectors

29 *those presenting a degree of 7%-4% prevalence at least in one sector
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32 **Fig. 5** Differences in prevalence of low prevailing barriers* across sectors

33 *those presenting a degree of 2%-0% prevalence at least in one sector
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37 Discussion

38 A long list of barriers to women leadership was present across all three sectors. Healthcare
39 marginally outnumbered academia with 22 and 21 barriers, respectively, whereas business sector
40 exceeded the other two sectors with 25 barriers. This difference is substantial enough to surmise
41 that the business sector presents the greatest challenges of these three in terms of fostering
42 gender equality and inclusion. Literature has dealt extensively with the majority of the barriers
43 hindering gender equality and inclusion, but there are certain that have remained outside the
44 sphere of detailed study and reporting, and, consequently, initiatives to address them. In the
45 context of identifying commonalities, and when considering frequency as the number of times a
46 barrier is addressed by literature and examining the varying degree of prevalence, no common
47 barrier across sectors can be identified as having been identified with values in the vicinity, but
48 none reached the same level across the same degree of prevalence. Several common barriers
49 have sectors, implying that each sector is governed by its own rules and needs in respect of
50 women leadership. It is, nevertheless, important to note that labor relations and the contractual
51 framework are important for setting the framework under which organizational culture develops
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3 and further result elaboration may benefit from correlating such factors to presence and
4 prevalence of barriers per sector. Therefore, albeit all sectors are characterized by gender
5 disparities, the gender equality challenge has to be addressed on the basis of sector-by-sector
6 cases and may, even, benefit from a closer examination at regional levels, particularly, in relation
7 to primary data collection.
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11 A concrete example on barrier commonalities with some striking differences is that of the six
12 prevailing barriers identified across explored sectors. Thematically, prevailing barriers are the
13 same (gender gap; lack of career advancement opportunities, stereotypes, work/life balance, lack
14 of mentoring and lack of flexible working environment) but their ranking order varies across
15 sectors implying the contextual nature of barriers' prevalence (Fig 3).
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19 Study findings on high prevalence of "culture" in business sector align with Ely et al (2011)
20 assertion that strong resistance to women leadership in top positions is being fed to a certain
21 extent by a culturally driven competition between men and women leaders. The "cultural
22 tightness" expressed in multi-faceted non-egalitarian practices³¹ (Toh & Leonardelli, 2012) along
23 with sociocultural constraints considered as weaknesses to motivate leverage to women
24 leadership (Schuh et al., 2014), also concur with the detected barrier prevalence. The
25 considerable prevalence of "gender bias", "glass ceiling", "gender pay gap", "lack of
26 networking" and "lack of social support" reaffirming Eagly and Chin's (2010) argument on
27 preconceptions and men stereotyping, which, either operating at unconscious level or not, leave
28 women leaders facing a double standard in the labor market. Surprisingly enough, the lack of
29 self-confidence barrier in healthcare indicates that sound scientific background might not be
30 sufficient to climb the leadership ladder unless combined with development of leadership skills.
31 The gender pay gap holds the same medium prevalence in both business and academia, but is
32 reported as very low in the healthcare sector.
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40 Drawn upon these findings, the researchers argue that literature states clearly the women's
41 inequality and inequity state across sectors with varying degrees of barrier prevalence; the
42 findings reflect difficult working settings, ill-equipped to fostering women leadership potential.
43 The barriers thematic map (BTM) to women leadership illustrated a comprehensive barrier list
44 and their prevalence across healthcare, academia and business showing the differences in gender
45 equality and inclusion challenges across those sectors.
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49 **Limitations and future research**

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52 Our study highlighted the knowledge gap in addressing differently the gender equality and
53 inclusion challenges within different working environments. Nevertheless, the results of this
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57 ³¹ Egalitarian = believing in or based on the principle that all people are equal and deserve equal rights and opportunities.
58 <https://en.oxforddictionaries.com/definition/egalitarian>
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3 study may need further research to validate the different areas identified and to substantiate the
4 knowledge regarding the range of barriers and the differences in the frequency and prevalence.
5 Ambiguously stated barriers may also have been included.
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9 The researchers applied the summative content analysis method to their introductory analysis,
10 however, the quantitative findings and the varying degree of barrier prevalence may need further
11 testing through the application of rigorous statistical methodology.
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14 Barriers to women leadership across sectors have been addressed evenly, however, sectors are
15 not similar and neither is the need for leadership capacity building. The leadership capacity in
16 each sector has been assumed and this is a pre-existing backdrop to the study and potential
17 contextual barriers to women's equal opportunities. For example, the work/life balance barrier
18 in healthcare emerges in a different working context than in academia or in business; in other
19 words, it is the result of different conditions and has different significance although it may
20 reported upon or examined under one terminological label (e.g., rotated working hours in
21 healthcare vs. unstable working hours in academia vs. long working hours in business).
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26 Reporting comes from different disciplines and for different reasons with heavy reporting bias
27 and interpretation anchored in different theoretical frameworks;
28 research may be needed to examine in detail the overall impediments towards reaching
29 environments that foster gender equality and diversity, as for example, through qualitative
30 research exploring all stakeholder perspectives, including those of human resources personnel,
31 recruiters, policy makers, and, of course, of the women themselves. Organizational settings
32 greatly vary across jurisdictions, as do cultural and social norms, e.g. age, social status, marital
33 status, childbirth, working experience, career inflection points; there is no stratification for this
34 and/or bias isolation in the reporting; therefore, a stringent application of statistical methodology
35 and an extraction framework to see where measurements reported are done, what is the legal
36 setting, labor agreements, etc. may be needed.
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43 Implications emerged from economic and migration crisis may also been explored as barriers to
44 gender equality.
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47 Operational definitions of healthcare, academia and business sectors have been adopted aiming
48 to clearly describe each sector's activities; yet, sectors may overlap, e.g. healthcare encompasses
49 business and academia, and academia encompasses healthcare, and business encompasses
50 academia. Future research may be needed to address intersections amongst sectors in terms of
51 gender equality and inclusion challenges.
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3 Research may also explore own choices in women's underrepresentation in leadership positions,
4 although they cannot be examined in isolation from broader organizational, societal and cultural
5 context and constraints.
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9 Transgender persons and gender equality challenges they face were not within the scope of this
10 study, even though deemed to be explored.
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12 **Implications**

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15 Women's notable and persisting underrepresentation in top leading positions may be reflected as
16 a critical drawback towards organizational, societal and cultural progress in terms of inclusion
17 and balanced decision making. Gender stereotypes in leadership equal opportunities, gender-
18 related corporate culture, inflexibility in workplaces structures, and inadequacies in social
19 policies, as well as gender roles in family responsibilities and the social acceptance are deeply
20 rooted constraints which may foster the "ambition gap", the perceived tendency for women to
21 choose family before work or to step away from a career opportunity (Schwanke, 2013). The
22 more competitive, inflexible and less policy-protected the work setting is, the more the scales tilt
23 towards choices made by women for less leadership opportunities or choosing to be
24 family/children free. Double standards in domestic roles reinforce also gender inequalities with
25 social and organizational implications. Domestic responsibilities and organizational cultures
26 impact differently upon women and men leaders when it comes to claiming leadership positions
27 (Hoyt, 2010). Women face multiple challenges and cannot counter such effect at personal cost as
28 a man may have the luxury to do. However, not all news is bad, since gender stereotypes are the
29 product of dynamic relationships between individuals, their interactions, constructions and
30 interpretations; they cannot have an absolute character and are subject to change overtime
31 (Montero, 2002).
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40 Women's pronounced inequality in top leading positions constitutes a misdiagnosed problem
41 that people with good intentions have misread its details. It appears that the problem has been
42 understood, but not solved. Despite the fact that a growing number of organizations and
43 institutions attempt to address the problem by establishing policies, strategies and initiatives,
44 reality is far removed from the goal set. The identified 26 barriers and their varying prevalence
45 per sector may uncover dialectics on unexplored practical implications and on developing
46 specific policy-making.
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50 **Conclusions**

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53 The findings of this systematic literature review produced a Barriers Thematic Map (BTM) to
54 women leadership in healthcare, academia and business with varying degrees of barriers
55 prevalence. The BTM uncovered the differences in gender inequalities and inclusion across
56 sectors drawing attention to understudied barriers prevalence. The knowledge gap in policies to
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3 address the gender equality and inclusion challenge differently within different working
4 environments has been highlighted. Those practice related blind spots may need to be further
5 researched and supported by specific policies.
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15 **Declaration of conflicting interest**

16 The authors declared no potential conflicts of interest with respect to the research, authorship,
17 and/or publication of this article.
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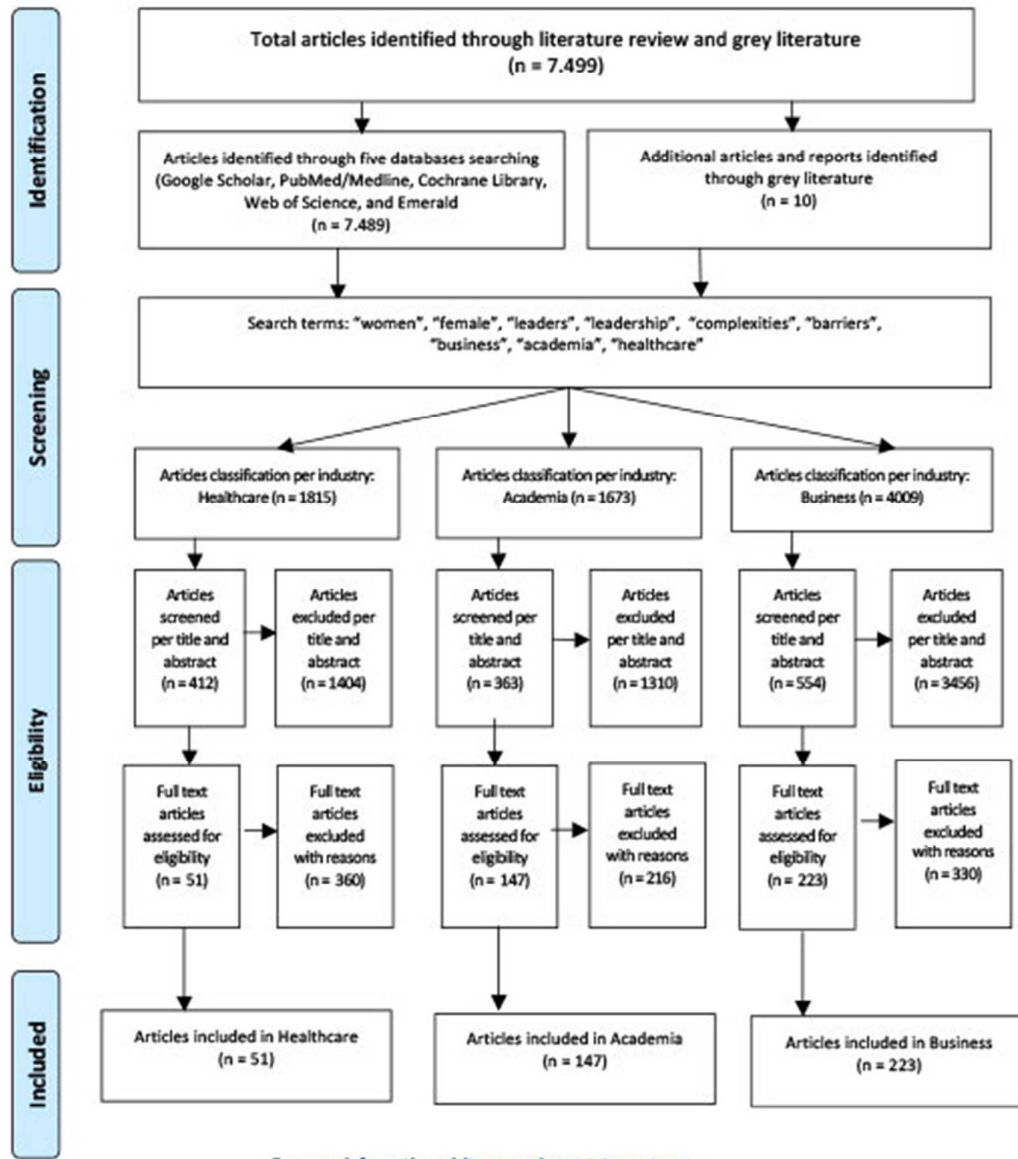
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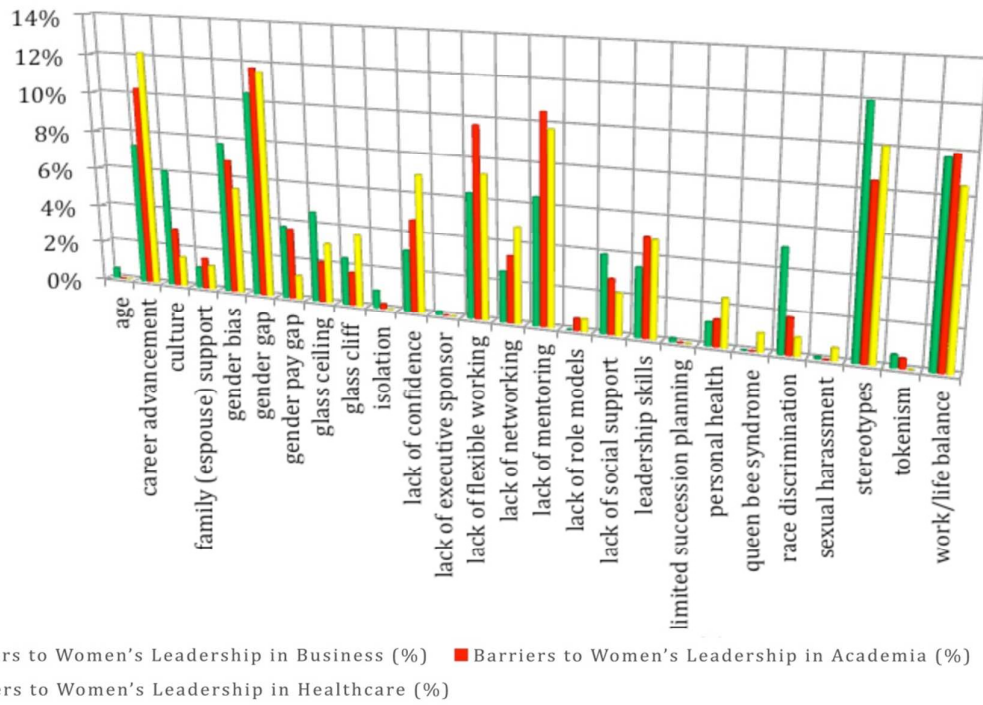
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Figure 1



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Figure 3

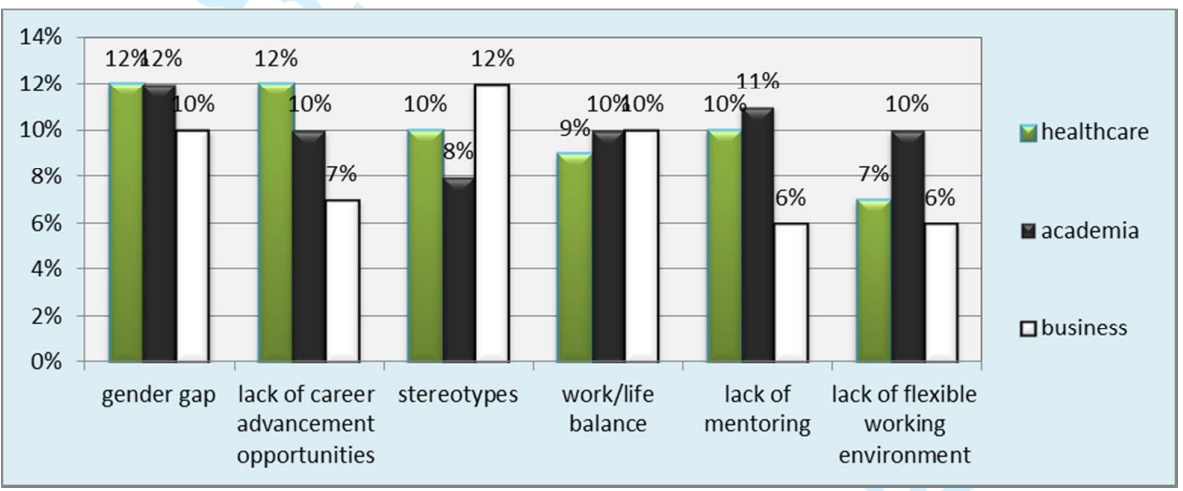
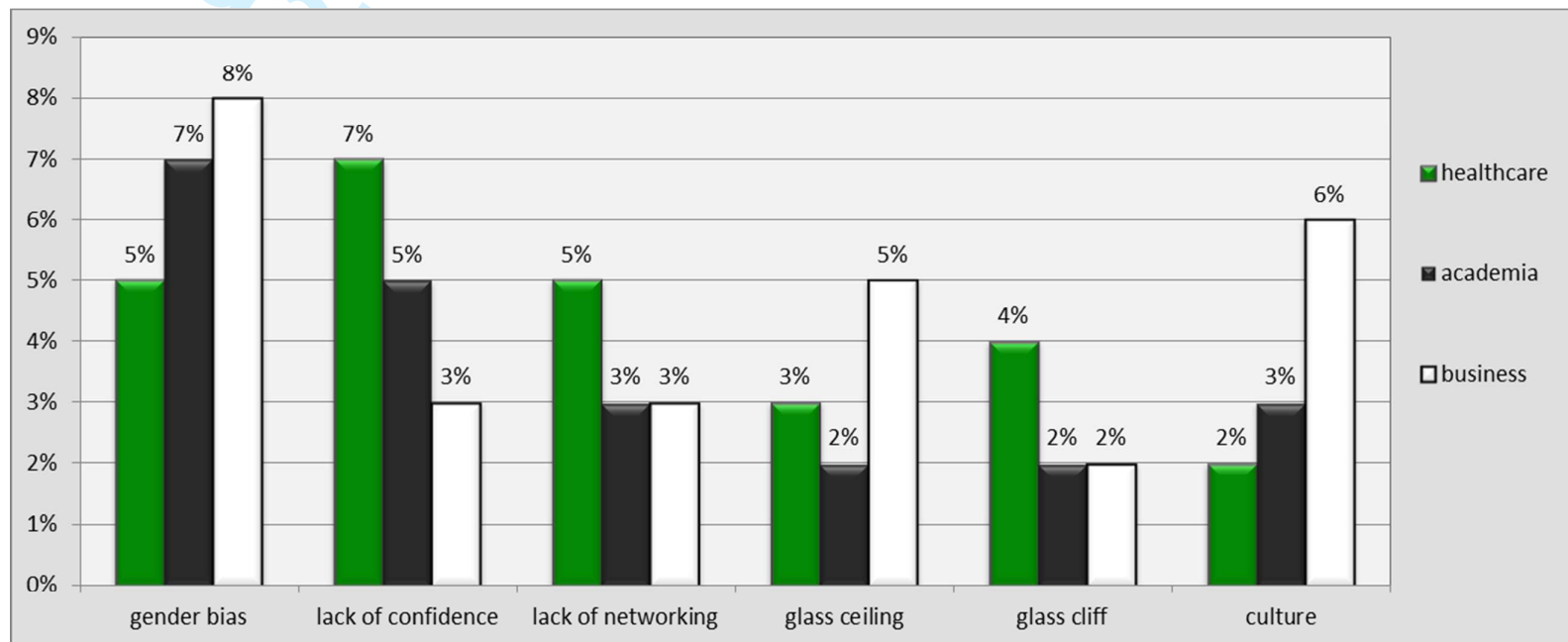


Figure 4



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Figure 5

