# Factors that influence the implementation of organisational interventions for advancing women in healthcare leadership: A meta-ethnographic study

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# Summary

Background Gender inequity in healthcare leadership persists and progress is slow, with the focus firmly on problems, barriers and on requiring women themselves to adapt and compete in a system not designed for them. Women are individually burdened to advance their careers, with little effort given to addressing systemic barriers in the health sector. A recent systematic review prioritised organisational-level approaches and demonstrated effective interventions. In this meta-ethnographic study, we further this work by examining factors in implementation of organisational interventions for advancing women in leadership.

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Methods The meta-ethnographic framework applied here follows the Noblit and Hare approach for synthesising findings and applying interpretive analysis to original research. We generated a new line-of-argument with insights for the healthcare sector. The protocol is registered (CRD42020162115) on the International Prospective Register of Systematic Reviews. Three academic databases (MEDLINE, PsycINFO, SCOPUS) were searched systematically between 2000 and 2021. Studies were analysed if they included organisational-level interventions that sought to measurably advance women in leadership. Study characteristics were extracted using a standard template for intervention details. Quality appraisal was conducted using the Critical Appraisal Skills Program tool. Data synthesis was conducted across 19 criteria of the Meta-Ethnography Reporting Guide (eMERGe).

Findings Fifteen qualitative studies were included. Analysis revealed three meta-themes that are central to successful implementation of organisational interventions that advance women in healthcare leadership: (1) leadership commitment and accountability, influenced by internal and external organisational settings, salient for long term outcomes and for developing an inclusive leadership culture; (2) intervention fit with individuals with consideration given to personal beliefs, preferences, experiences, capabilities or life circumstances, including capacity for leadership roles in their broader life context; balanced against maintaining interventional fidelity, and (3) cultural climate and organisational readiness for change, addressing traditional, conservative and constrictive perspectives on gender and leadership in health, highlighting the facilitating role of male colleagues.

**Interpretation** This meta-ethnographic research extends past work by integrating empirical evidence from a systematic literature review of effective organisational level interventions, with the identification of pragmatic themes to generate, implement, evaluate and embed evidence-based organisational interventions to advance women in health-care leadership. This work can inform initiatives and policymakers to generate and implement new knowledge to advance women in healthcare leadership.

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### **Research in context**

### Evidence before this study

A recent systematic review synthesised effective organisational interventions to advance women in leadership. For this meta-ethnography, three academic databases (MEDLINE, PsycINFO, SCOPUS) were searched between 2000 and 2021. Studies were included if they involved organisational-level interventions that sought to measurably advance women in leadership. Search terms included "gender" AND\*, "equality", "equity", "organisation", and "leadership"; and "healthcare", "medicine", or "academic medicine".

### Added value of this study

To the best of our knowledge, this is the first meta-ethnographic study that explores factors that influence organisational-level interventions that advance women in leadership within the healthcare sector, including allied health, medicine and academic medicine. The study identifies three themes relevant to the implementation of organisational interventions within the health sector.

# Implications of all the available evidence

These findings have the potential to inform the codesign and development of practice and policy interventions. Future research is needed to build on the themes of this meta-ethnography, with a specific focus on the role and impact of the current cultural climate of the healthcare sector internationally.

# Introduction

Extensive efforts to progress gender equity have had little effect on improving the representation of women in leadership in the healthcare sector<sup>1,2</sup> limiting their capacity to positively influence vision, culture, policy, performance and ultimately, patient care.<sup>2–4</sup> Women have a significantly greater inequity driven health burden, with evidence showing women in leadership drive equitable policies that are more supportive of women and children.<sup>2,5</sup> Beyond the need for social justice in this area,<sup>3</sup> evidence also supports women in leadership

as drivers of organisational change and an enhanced performance of the workforce that supports better health outcomes. <sup>6–8</sup> Gender equity in leadership is also essential to maximise the capital invested in women, and harness the significant potential of the health workforce, comprised primarily of women. <sup>9,10</sup>

Much of the empirical research effort to date has largely focused on identifying the problem, lack of progress and barriers, with limited recognition of the need to move beyond the level of the individual to address organisational-level challenges that enable meaningful change.5,111 Furthermore, current efforts are generally limited and adhoc with little challenge to persistent modes of inequity, making the implementation of effective, evidence-based organisational change to advance women in healthcare leadership, an urgent necessity. 2,10,12-14 Indeed, The Lancet special issue in this field strongly endorses the need for organisational change initiatives, such as the Women in Global Health movement, that works towards progressing efforts for the advancement of women in healthcare leadership internationally. $^{4,14-16}$ 

Moving forward, it is important that organisations invest in effective interventions to sustainably increase the number of women, and support them in leadership. 9,17 Research across multiple industry sectors has advanced knowledge on effective gender equity interventions. II A systematic review and meta-synthesis on what works revealed five categories of effective organisational interventions: i) organisational processes, including process and practices that support gender equity actions; ii) awareness and engagement, for building an inclusive workforce culture; iii) mentoring and networking; iv) leadership training and development; and v) support tools, that help measure, evaluate and report on organisational efforts necessary for change." While the interventions varied, there was a lack of clarity on factors that influence their implementation, which are otherwise local and unsustained with limited impact. Addressing gendered and restrictive organisational structures, such as workplace norms, constraints and culture appear important<sup>4,18</sup> as does overcoming systemic failures in integration of effective interventions, to address gender-based barriers for women. 6,12-14,17,19,20 Similarly, health systems primarily designed by and for traditional male gender roles

and life patterns, need to be addressed to advance women in leadership and deliver improved social, economic and health outcomes. <sup>21,22</sup>

Organisational interventions in any area require evidence-based approaches to implementation, including consideration of the associated social factors that influence that process. <sup>11,23</sup> Yet, current understanding of the nuances in gender equity and the interplay and relative importance of social and organisational factors which impact on implementation, remain limited. Qualitative meta-ethnography research methods can generate new insights into the complex factors that influence implementation of effective interventions in healthcare.

Given established inequity, the benefits of diversity in leadership, the effective interventions yet the implementation challenges, our aims are to generate new knowledge on how interventions can be effectively implemented in healthcare. We build on a systematic review of organisational interventions, and seek to go beyond the aggregate findings of the studies, to inform implementation with a separate and sequential analysis of the research. We aim to examine the social and cultural factors that influence organisational implementation and produce new theoretical and conceptual contributions to improve policy and practice for advancing women in healthcare leadership including academic clinicians. This work will guide co-production and implementation of evidence-based interventions in a funded international research and translation initiative to advance women in healthcare leadership. 24,25

# Methods

A rigorous seven-stage methodology, developed by Noblit and Hare<sup>23</sup> was applied in the meta-ethnography<sup>26</sup> (Table I, See supplementary materials I and 2). Meta-ethnography is a systematic methodology for synthesising qualitative research in the health setting.<sup>27</sup> In this section, we provide an in-depth breakdown of the analytic approach used to conduct this work. The review

was reported according to the Preferred Reporting Items for Systematic reviews and Meta-analyses (PRISMA) (Companion file I) and the Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) guidelines(Companion file 2). A protocol for this work is published and registered (CRD42020162115) on the International Prospective Register of Systematic Reviews and methods were further outlined in the published systematic review. The metaethnography reporting guide (eMERGe) (Table 2, Companion file 3) includes 19 criteria to optimise reporting quality, and was applied here, the indings.

# Search strategy and identification of relevant studies

The original research strategy for the systematic review is published, and included research from January 2000 to March 2021. Here the search used relevant terms across MEDLINE via OVID; Medline in-process and other non-indexed citations via OVID; PsycINFO; and SCOPUS. Two independent reviewers screened studies and conducted full text review. Using an agreed template, data from all studies were then independently extracted by the two reviewers, including descriptions of sector/context, settings, sample size and description, as well as primary outcomes from interventions for advancing women in leadership. To focus the literature on the healthcare sector, an updated search was conducted from November 2020-to May 2021 (Figure 1). In this analysis, academic medicine refers to research committed to the training and education of medical professionals, while medicine refers to research committed to the practice more broadly, with overlaps. A systematic search strategy was used to locate all available studies that investigated organisational-level interventions that advanced women in leadership. II,25 Search terms "equality"," equity", "gender" AND\*, "organisation", and "leadership". Only English language articles were included and added to the original study cohort from a published systematic review and meta-synthesis. In this study, we were interested in how

Steps	Description	Detail
1	Getting started	Search criteria and parameters defined and conducted
2	Relevance to initial interest	Excluding studies if applicable, and conducted quality assessment
3	Reading studies	Reading of individual studies line by line, making initial notes, organising into interventional categories by publication date
4	Determining relatedness	Data extracted from the included studies onto a standard template determining how studies are related to one another, identifying common themes, and conceptual categories
5	Translating studies	First and second order themes synthesis based on whether they conceptually converge or diverge
6	Synthesising translations	New Interpretations synthesised into third order themes from translated concepts and line of argument developed to form a whole picture
7	Expressing the synthesis	Practical implications in relation to implementation for organisational practice, policy, and/or research

Stages	Section	Description
1- Selecting method/ getting started	Introduction	Rationale and context for the meta-ethnography
		Aims, focus and appropriateness of methodology
2- Deciding what is relevant	Methods Findings	Search strategy, process and selection of primary studies
		Outcome of study selection
3- Reading included studies	Methods Findings	Describe reading and data extraction approach
		Presenting characteristics of included studies
4- Determining relatedness	Methods Findings	Process for determining how studies are related
		Outcome of relating studies
5- Translating studies into one another	Methods Findings	Process of translating studies describing steps taken to preserve the context and
		meaning of the relationships between concepts.
		Describe the outcome and interpretive findings of the translation.
6- Synthesizing translations	Methods Findings	Synthesis the methods used to develop overarching concepts
		Describe the conceptual framework, and interpretation of data developed from the
		synthesis
7- Expressing the synthesis	Discussion	Synthesis of main interpretive findings
		Strengths, limitations, and reflexivity on methodological aspects
		Recommendations and conclusions with implications of the synthesis

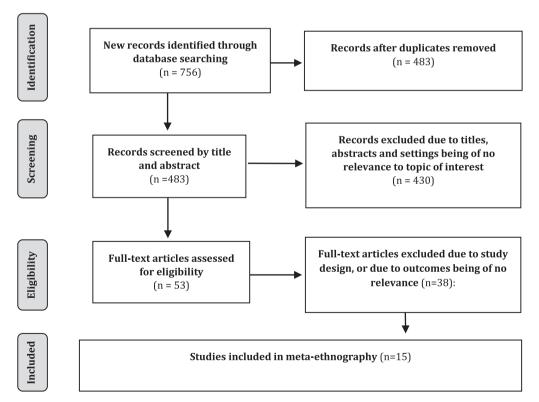


Figure 1. Screening and study selection process.

researchers explain and interpret the social and cultural context of interventions, and factors that may influence their implementation. As such, two reviewers including first author (MM) independently assessed the titles and

abstracts of all new records generated, further narrowing the study selection to qualitative studies only, relevant to "healthcare", "medicine", or "academic medicine".

### Quality appraisal

It is acknowledged that "qualitative" is an umbrella term that encompasses a diverse range of research methods, making it challenging to define a 'one size fits all' approach to assessing quality. 26-28 Here, the Cochrane Qualitative and Implementation Methods Group (hereon Cochrane), provides guidance on methods for assessing methodological strengths and limitations of qualitative research. 28,29 With this guidance, we used the Critical Appraisal Skill Programme (CASP) tool30 specific to the assessment of qualitative research, which is endorsed by Cochrane, and commonly used for quality appraisal in health-specific qualitative evidence synthesis.29 Each study included was appraised (including making decisions on which criteria, concepts and dimensions should be used within each study) and judged against 10 CASP criteria<sup>30</sup> prior to synthesis, as previously published in supplementary material. No data elements were excluded from use in this review based on the quality assessment. The strength of evidence was weighted against elements of methodological rigour, such as clarity and transparency in sampling and recruitment strategies, explicit and detailed data collection and analysis method descriptions, ethical considerations and researcher reflexivity, among others.<sup>28</sup> Study exclusions were made if studies were insufficiently focused on the subject matter, not relevant to health, or not fully qualitative (i.e. did not analyse the data qualitatively). The appraisal process was carried out by two reviewers including the first author (MM), with consistency of scoring confirmed in discussion. II Each study was allocated a high, moderate, or low risk rating against the 10 reporting criteria outlined in the CASP.

### Data extraction

As previously published, detailed features such as study design and methods, population size and characteristics, intervention type and its outcomes were extracted by two reviewers including the first author (MM) using a standard template (Table 2). Guidance through discrepancies was sought through deliberation with the coauthors and consensus determined by senior author HT. For data extraction, all eligible studies were further read multiple times to identify salient concepts in the introduction, results and discussion sections of each study. Primary data was drawn upon in the form of direct quotations where concepts are readily communicated in the studies as way of grounding the 'data'. Concepts articulated in participant and author accounts are extracted and listed as first and second order themes respectively (Table 4). These concepts were discussed and critically reviewed with author HT.

### Data synthesis and analysis

All studies were organised into groups based on interventional similarity, and by publication date (step 3

process in Table 1). Study characteristics, along with salient concepts were extracted into a standard template documenting why and how each study was conducted, along with accounts articulated by study participants and authors (step 4 process in Table 1). In the analytical phase, findings were translated and integrated into one another systematically.<sup>27,31</sup> For example, study 1 has findings (a1), (b1) and (c1), and study 2 has findings (a2) and (b2) similar to study I findings, with the addition of finding (d2), which did not appear in study 1, but was closely related to finding (d3) in study 3 (step 5 process in Table 1). The process outlined in this example continued iteratively throughout until all studies had been translated into each other. Reciprocal or refutational concepts were coded as such and organised into their conceptual categories forming new higher-level concepts. Further synthesis was conducted to generate third order themes of relevance to the objectives of this study (step six process in Table 1), and Table 4.

Three different methods of synthesis are commonly used in meta-ethnographic analysis.<sup>23,26</sup> In this study we utilised the 'translation' of concepts from individual studies into one another, developing overarching and converging concepts in a process coined as reciprocal translational analysis (RTA). 27,31 Here, themes from each study at the participant level (first order themes) and at the author level (second order themes) were extracted and integrated with themes from the other studies. Further, we employed refutational synthesis as a means of exploring and explaining tensions between individual studies. This is where concepts contradict one another, and offer other possible interpretations. 26,31 Depending on how study concepts were related, new interpretations were developed as third order themes. Finally, we built a picture of the whole (a meta-theming if you will) through the Line-of-argument (LOA) synthesis which brings together the social, cultural and organisational context to tell a single story. 27,31 In this 'story', we conceptualise an approach to implementing interventions that advance women in leadership within the healthcare setting.

# Role of the funding source

The funders had no role in study design, data collection, analysis, interpretation, or writing. The corresponding author has full access to all data and final responsibility for the decision to submit for publication.

# Results

# Study characteristics

An updated search from 2020 to 2021 generated a total of 5991 articles of which 961 were duplicates. Only 756 records were new to the systematic search, after 273

# **Articles**

duplicates were removed. Of the 756, 483 studies were screened by title and abstract (Figure 1). Fifty-three studies were selected from the 483 for full text review and none were of relevance to the analytical goals of this meta-ethnography. Ultimately, all studies included here, (n=15) were captured in the original systematic review and meta-synthesis. Overall, the included studies were conducted between 2001 and 2020, with 8 from the USA, 4 from the UK, 2 from Australia and 1 from Canada. Of the 15 studies, 11 represented a total of 278 participants, and 4 did not specify sample size or characteristics

as analysis did not include participants. Six of the studies were in medicine, another 6 in academic medicine, 2 in nursing and I was conducted in general healthcare administration with a focus on CEOs. Study designs varied and included a mix of exploratory case studies, interviews, or focus groups, situated in interpretive, phenomenological and narrative frameworks such as grounded theory. Methods of data collection were primarily semistructured interviews, but also included observational thematic analysis of records, Delphi technique and Q methodology (See Table 3).

Author, Year, Country	Intervention	Method of data collection	Population	Primary outcomes
Schmidt, E. et al., 2020, UK	Implementation of Athena SWAN Action Plans in Academic Medicine	Thematic analysis of the design and implementation interventions	16 departments at one university	Multiple components of intervention with a focus on the complex systems being embedded in local dynamics, and impact in terms of contribution to change.
Columbus et al., 2020, USA	Factors supporting advance- ment and achievement in female surgeons	Semi-structured grounded theory interviews, over the phone	20 women from current and emeritus staff	Common themes in external factors associated with career success
lbrahim et al., 2018, USA	Twelve Interventions for best practice in Academic Medicine	Observational study- the- matic analysis	NS*	Faculty recruitment, reten- tion and scholarship, pro- motion and leadership
Laver et al, 2018, Australia	Interventions to support the careers of women in academic medicine	Summary synthesis of 18 interventions	NS*	Efficacy of interventions, self-reported skills and capabilities, gender bias, satisfaction with the programme and tangible outcomes including faculty representation, retention, rank and remuneration.
Carr et al., 2017, USA	Group on Women in Medi- cine and Science	Qualitative interviews	23 institutions and 44 faculty	Using the Social ecological framework to examine how institutions operate at the individual, interpersonal, institutional, academic community and policy levels to improve the recruitment, promotion and retention of women in academic medicine
Bryant et al., 2017, UK	50 interventions on good practice or positive action, addressing cul- tural, organisational and	Q methodology	55 purposively sampled staff at the School of Medicine	Prioritize interventions, good practice, leadership responsibility, career development initiatives

Author, Year, Country	Intervention	Method of data collection	Population	Primary outcomes
Choo et al., 2016, USA	Initiatives to support women physicians in emergency medicine with advancing to leadership	Delphi Technique	11 leaders from two EM women's organizations	Global Approaches, 2.     Family-friendly Policies for Recruitment and Retention of Women in EM, 3. Supporting Development and Advancement of Women in EM, 4. Health and Wellness Among Women Physicians
Cafferey, et al., 2016, UK	Gender equity programmes in Academic Medicine	Multi-method qualitative case study	16 interviewed and 15 focus group	Perceived impact and utility of the Athena Swan Framework
Bismark et al., 2015, Australia	Capacity, capability and credibility of women in Medical Leadership	Semi-structured interviews	30 medical practi- tioners in a range of leader- ship roles	Perceptions on strategies to address under represen- tation of women
Sexton et al., 2014, USA	Career path trajectories marking inflection points in Hospitals	Grounded theory interviews	20 women hospital Chief Executive Officers	Early, mid and late career recommended activities for women in an effort to enhance their career trajectories
Magrane et al., 2012, USA	Conceptual model for Evalu- ating the professional development of women in Academic Medicine	Exploratory qualitative / conceptual modelling	NS*	Factors influencing wom- en's progression to advanced academic rank executive positions, and informal leadership roles
ssac et al., 2012, USA	Educational intervention using the trans-theoreti- cal model of behaviour change framework in Medicine and STEMM	Qualitative text analysis of weekly journals	30 women in STEMM, course participants	Success of a semester course on increasing women's leadership self- efficacy
Woolnough et al., 2006, UK	Career development and mentoring program in the NHS*	Cross-sectional qualitative	24 mental health nurses from 6 NHS mental health trusts	Perceptions of mentoring (definitions, qualities of effective mentors and mentees)
Morahan, P., et al., 2001, USA	Activities for education; institutional policy and procedures; and Leader- ship development pro- gram in medical schools	Observational study design	7 Medical Schools	Processes and factors that influence program success
Donner et al., 2001, Canada	Mid-career retention pro- gram for Nurses	Observational study design 50% participants at 1 month, 6 month and two year follow up	12 nurses	Evaluation of experiences

# Table 3: Study characteristics.

\*NS Not specified,  $\,$ 

All studies included focused on career development and career path trajectories across early, middle or senior level career stage advancement. They included interventions for credibility, capability or capacity building including professional development, education, organisational policies and practices for gender equity, as well as internal and external mechanisms that support women in advancing to leadership. Several

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frameworks were used to support the theoretical and conceptual basis of the studies, including the Athena Swan, the socio-ecological model and the trans-theoretical model of behaviour change framework. Outcomes explored included participant perceptions, experiences, beliefs and priorities of factors that influenced their progression and/or the success of an intervention, as well as the impact and utility of interventions on enhancing gender equity for women in leadership. Individual study characteristics are detailed in Table 3.

# Quality appraisal

On the CASP criteria, all studies here rated high to very high quality, and none were rated as low or very low quality. Overall, the research studies included have clear and justified research questions, and were conducted in a timely, rigorous and relevant way, addressing the topic at hand.

### Data analysis

Data synthesis and translational analysis was conducted to generate three third order themes of relevance to the objectives of this study. Lead author (MM) developed the third order themes in discussion with senior author (HT), highlighting differences and similarities in findings across the studies. 23,26 Several concepts were insufficiently weighted to contribute to robust themes and therefore, were not included. First, second and third order themes, concepts and descriptions are in Table 4. The third order themes are captured in the context of implementation of gender equity interventions to advance women in healthcare leadership. They are: 1) leadership commitment and accountability; 2) intervention fit and fidelity and; 3) cultural climate and organisational readiness. The generalisability of these themes is supported by iterative and conceptual abstraction, whereby each theme can be consistently argued for across studies, variable contexts, settings and populations relevant to the healthcare sector, including allied health, medicine and academic medicine. Thematic interpretations are presented below, followed by the final synthesis stage, which builds back a whole picture with the line of argument synthesis.

# Theme 1: leadership commitment and accountability

The first emerging third order theme is leadership commitment and accountability to a culture of inclusivity. Here, the included studies suggest that regardless of how a cultural shift towards gender equity happens within organisations, it is critical that the burden of change does not fall on women alone and those who are considered the beneficiaries of workplace culture change. This burden was seen to create additional work for those already facing challenges and barriers, amplifying their need to continually justify the value of their

contributions. Building a culture of inclusivity starts with inclusive leadership, recognising and removing career barriers for women at all levels of an organisation. Within this, raising awareness was not sufficient to support systemic change, with a risk that interventions focused solely on 'awareness raising' may have little impact on long term culture change that supports the advancement of women into leadership.

As such, recognising leadership efforts towards culture change as key indicators of performance, is a first step towards holding those with the power to facilitate change, accountable. Inclusive leadership appears important to facilitate organisational change, and leaders in health require core competencies in this area. Examples of successful and sustainable interventions required this commitment, including with resources across financial, tangible and flexible support, transparency in hiring, promotion and rewards for individuals; as well as intangible support, such as emotional and cultural intelligence, and engagement in the prevention of bias and discrimination. 32,33 This suggests that setting an organisational expectation of competency in these areas for those in leadership positions, and integrating competency when evaluating performance for career progression, can help establish gender equity as a cultural norm.

Furthermore, accountability, as a critical driver of change in organisations, is important in promoting inclusive behaviours in the workplace. Those in positions of leadership today, with the power to effect change (typically men) can visibly and actively develop these performance metrics and embed them within existing organisational structures. Similarly, professional and governing bodies, Medical Colleges and societies, including funding agencies can take a more active leadership role in building metrics into their structures, thus holding members of their organisations accountable to inclusivity across specialities and disciplines.<sup>34</sup>

Leadership commitment and accountability, in context of the included studies, often referenced the complexity of the social systems that structure the sector. Here, interventions to improve gender inequity in leadership, were conceptualised based on restrictive gender norms and practices, which triggers consideration about the role of gender-based research in these studies and more broadly. These considerations are important to reconceptualise, rather than reproduce, past research in order to break away from the status quo. In working to eliminate inequities, researchers have a separate but equally important level of accountability towards improving gender inequity, where issues need to be explicitly investigated with reference to structured disadvantage, as it is mediated through gender discriminatory policies and practices, and highlighting serious implications and offering solutions. Researchers along with the multitude of leading stakeholders involved in

Third order themes (interpretations developed from tertiary analysis of the first and second-order concepts)	Second order concepts (metaphorical concepts representing the primary authors' interpretations of the data)	First order concepts (exemplary primary data reported by participants)
Leadership Commitment and Accountability: A commitment to inclusive leadership is important for organisational change, removes burden from the individ-	Concept 1: Systemic change starts at the top Gender-based approach, beyond the individual, systemic is meaningful	"achieving meaningful change will require us to move beyond 'fixing the women' to a systemic institutional approach that acknowledges and addresses the impact of unconscious, gender- linked biases"
ual and leaders need to be held accountable to core competencies in this area.	Concept 2: Awareness of need for leader commitment  Explicit commitment, persistence, tension with tokenism	"some suggested that a more explicit focus on gender equity at an institutional level might be a useful strategy" and "I don't like the quote for women idea but I do like the idea that we dinsist on diversity in leadership roles such as or boards."
	Concept 3: Leaders as drivers of change Positive action, leader responsibility	"significant steps such as eliminating the gender pay gap will only happen if those in leadership roles take responsibility for driving change. High-priority interventions are therefore those that represent positive action at an organisa- tional level"
organisational change requires effective evidence-based interventions that incorporate the specific	Concept 4: Work-around strategies to meets the need of women Work-arounds, unspoken strategies, organisations not meeting needs	"I don't think that I ever tackled that head on. It d not seem worth my time. I just found a work- around and found another avenue to rise to th top."
needs and requirements of wom- en's work conditions and preferen- ces, capabilities or life circumstances, and opportunities,	Concept 5: Balance with measuring impact Rubber stamping activities, individual level insufficient	"Interventions aimed purely at the individual leve only are viewed to have little material impa- on the working environment and are essential 'window dressing' activities"
into their broader lives, without losing the integrity and fidelity for implementation.	Concept 6: Preservation of Intervention merit  Merit, prioritised interventions, tailor but don't  change	"High-priority interventions are those that encou age women to achieve excellence as currently defined "we shouldn't lower the standards for women"
	Concept 7: Engagement through training Engaging culture, training fit, policy fit, women's reality	"For all senior level positions, we actually ask peor ple to explore their innate biases It's eye opening for a lot of people." "Training policies do not adequately account for the needs of su geons in their childbearing years."
cultural Context and Organisa- tional Readiness: Deconstructing and challenging how systemic inequality is understood is impor- tant. Gender equity in leadership	Concept 8: Awareness and engagement with women's experiences  Male colleague engagement, perception and awareness	"I've never found myself to be particularly sensitiv to this because I'm not a woman in the end" and, "more women than men perceive inequi- ties in promotion, salary, access to resources and fellowship opportunities"
requires change, but the nature of this change and the organisations approach towards it, is of equal importance to the change itself.	Concept 9: Credibility impacted by culture Gendered-work culture, stereotypes, traditional conservative leadership	"Some interviewees noted that habitual privileg- ing of stereotyped 'maleness' as the only credi- ble context for leadership, created a heavily- gendered work environment. This environmen was alienating and uncomfortable for some female leaders"
	Concept 10: Perceptions impact urgency for change Perception of importance, normative inequality, position of women	"repeatedly presenting a group as the referent ca cause this group to appear more powerful and higher in status and can contribute to the legit misation of inequality"

Table 4 (Continued)

Second order concepts (metaphorical concepts representing the primary authors' interpretations of the data)	First order concepts (exemplary primary data reported by participants)	
Concept 11: Role of male colleagues in facilitat- ing culture Individual men, advocacy, perceived impact of change	"What he cared about was that I could do the work He told others about me and promoted me because he felt that I deserved it."	
	representing the primary authors' interpretations of the data)  Concept 11: Role of male colleagues in facilitat- ing culture Individual men, advocacy, perceived impact of	

this work need a new plan, with new commitment in order to realise the powerful but real aspirations of attaining gender equity in healthcare leadership

# Theme 2: intervention 'fit' and fidelity

The importance of developing intervention programs that target different groups of women emerged as another third order theme across the studies, highlighting the specific needs and requirements of the workforce and of women's working conditions within the health sector. Engaging, listening, tailoring and codeveloping or adapting strategies to meet the needs and experiences of women in the workforce when implementing interventions can influence reactions, engagement and the probability of successful organisational change. The more salient factors that emerged here included accommodation of women's personal beliefs, preferences, capabilities or life circumstances, including contextualising workplace opportunities into their broader lives. This is crucial in relation to differences amongst women, where the intersections may not be immediately visible.

This theme overlaps with the first theme on leadership commitment, and in particular commitment towards gender-based approaches. However, it differs in that it centres on the adaptation and implementation of the interventions and how they may 'fit' with individual women's needs, reflected in self-reported satisfaction measures, and in women's conceptualisation of what works for advancing their careers in leadership.35,36 This aligns with the notion that interventions may be powerful where they are a good fit with the workforce, while a poor fit may limit efficacy of the same intervention in other organisations and contexts.37,38 It suggests that the interventions and implementation efforts need to be culturally compelling, not merely culturally appropriate for the health sector, with considerations to discipline specific variations. To be culturally compelling, interventions need to build on existing organisational practices and priorities that extend the focus from an intention to change to actual behaviour change, especially where women have habituated to work-arounds to 'fit' with work-related demands, that in themselves differ across health professions and individual circumstance.

Reconciling the tension between tailoring intervention design to ensure 'fit', with maximising fidelity (the degree to which an intervention is delivered as intended; an element that is critical for implementation) is recognised as an essential step towards strengthening outcomes, and delivering organisational change. In this instance, to disseminate and effectively implement evidence-based organisational interventions with 'fidelity', thus preserving the integrity and quality of the original interventional conception; organisations would need to carefully consider measurement, and integrate it with evaluation of impact of interventions.<sup>39,40</sup> Though not always stated, fidelity can also include underlying theories and specific strategies that inform interventions, that in many organisational contexts are based on homogenous constructs of women and women's needs. Why (and how) is it important to consider intersectionality, and query the particular experiences of women, who do not themselves 'fit' into the common narrative of the gender-equity lens, is central to this theme. Further exploration is needed to understand the ways in which women's experiences of work (with attention to nuances both within organisations and across different career stages, educational levels, disciplines) are shaped and challenged by the political, religious, economic and social processes that impose on their lives. This provides a basis for adaptive and accommodative strategies to be embedded into the definition of 'fit' when designing a culturally compelling gender equity intervention, rather than replicating the male manqué approaches for women.

# Theme 3: cultural climate and organisational readiness

The implementation of gender equity interventions tends to be framed as addressing women's inherent disadvantage, often illustrated by suggestions on how women can improve outcomes for themselves, reinforcing the individual focus on effecting change. <sup>12,36,37</sup> Here, the final third order theme reflected the dominant cultural gender discourse in health and how it frames interventions for advancing women in leadership. Within this is a focus on disadvantaged groups, which potentially emphasises the marginality of women and perceptions of victimhood, both counterproductive to

credibility and career advancement. 41,42 Similarly, framing inequity as a privileged group's advantage (men in this instance), risks causing reactance within the workforce, which can also be counterproductive. Ultimately, addressing the constraints and challenges that women face, requires attention to gender dynamics within an organisation. How these dynamics are embedded within the broader organisational culture, highlights the need to reframe the way women are positioned within organisations when implementing interventions for gender equity in leadership.

The framing of women's disadvantage versus men's advantage influences the rationale provided and perceived credibility of interventions. Individuals within the workforce actively engage and reconstruct this framing, rather than engage for the goals of organisational change, with several effects. Firstly, in framing around groups rather than the organisation, the cultural climate may bias judgements, evoking emotional and behavioural reactions, and attributing blame towards women, hindering adaptive change. Second, this approach can inadvertently reinforce and reproduce existing discourses of authority (usually patriarchal and male-centred), which is often dismissed or ignored by the predominance of women in the health workforce. The mere presence of women in the field, simultaneously positions them as part of, and outside of the healthcare hierarchy, which revives conventional assumptions about authority in the field and impacts on the motivation, perceived competence, and capacity of women to advance in their careers. Third, even with interventions designed to change these cultural dynamics, women still continue to have unequal access to opportunities, constraining advancement relative to men. Thus, organisations with interventions that promote a veneer of improving outcomes for women, without addressing the practicalities to ensure readiness, may instead produce resistance to change. This resistance can be set through appeals to 'ethics' (the meritocracy myth, i.e. women are not qualified or capable), and to tradition and convention to preserve the status quo (e.g. women choose to have children and provide at home care).

Culture change in this area affects men (real or imagined) and requires their involvement in the change process to prevent resistance. While initial efforts have highlighted the role of men as advocates and allies, with emphasis on individual changes in attitude and behaviour, building a more gender inclusive culture in the workplace requires moving away from the focus on the individual genders for effecting change. This is of particular relevance as organisations continue to shift away from industrial-era heroic leadership models (that draw a neat, unidirectional and top-down line between leader and follower). Traditional, conventional or normative heroic leadership models may work to maintain the status quo, but gender equity in leadership likely requires transformational change, and with it more distributive

approaches to leadership are needed. Indeed, it appears that leaders of this transformation will need to balance reinforcing conformity within their organisation, with the mandate required to achieve gender equity, holding all stakeholders accountable to change.

# Line of argument

The final stage of analysis requires the development of an abstracted line of argument based on the three core themes, to form a whole picture and effectively tell the 'implementation story'. The synthesis of studies in this review reveals that there is a disconnect between what organisations do, and perspectives on how it should be done, and as such what aspects an implementation ought to consider. For this, we developed a conceptual framework that models the themes for implementation. Refuted translations, and contradictions that help us understand and reflect on factors for the successful implementation of gender equity interventions in health underpin this framework. They also draw attention to the tensions between a) leadership commitment to change and the need to hold those in power accountable; b) intervention fit and the need to preserve fidelity with evidence-based research and development; and c) the need to challenge constrictive and conservative approaches to power and authority in the field, yet making concessions to the traditions and conventions of healthcare, medicine and academic medicine. Here, we conceptualise these tensions as underpinning the implementation of gender equity interventions, and to circumvent the oblique resistance often encountered when cultural change is the objective within organisations. The opposing ends of these tensions are not inherently good or bad; rather that the balance in the mix within the healthcare context can contribute to a higher probability of intervention success. Implementation efforts will require that different health organisations adjust this balance, based on their own cultural push and pull. Ultimately, implementing any interventions harmoniously needs to account for these tensions as key factors that can shape outcomes with impact on gender equity for women in healthcare leadership.

# Discussion

To our knowledge, this is the first meta-ethnographic study that explores factors that influence organisational-level interventions that advance women in leadership within the healthcare sector, including allied health, medicine and academic medicine. We have previously shown that effective evidence-based organisational interventions can advance women in healthcare leadership and here, advance this knowledge through discovering considered approaches to intervention implementation. Applying robust methodology, we have extracted first and second order concepts and

generated three core, third order themes to further the conceptual understanding of multi-component gender equity interventions, furthering the evidence base on how best to codesign and implement them at the organisational level. These themes centre on the role of 1) leadership commitment and accountability, 2) intervention fit and fidelity and 3) the cultural climate and organisational readiness for change. Here, we continue the effort to shift beyond the persistent focus in research on the barriers to women's career progression, to furthering the potential of effective organisational interventions to advance women in leadership. <sup>2,12,21,24,43</sup>

Achieving gender equity in the sector requires fully engaging the whole workforce. This includes recognising individual contributions positioned within a system of cultural dynamics, removing the burden of change from women, and reframing implementation to prevent resentment, reactance and resistance in the workforce including by men. We highlight the important role of leaders, colleagues and institutions in challenging restrictive organisational norms that fail to harness workforce capability, and changing the nuanced interactions of a system primarily designed by and for men.4,21,22 Indeed, research asserts that addressing these workplace norms is a necessary first step to effect change at the organisational-level, and advance this seemingly intractable problem for women in the field.4,18 The themes generated in the current study bring unique considerations to implementing organisational interventions to advance women in healthcare leadership. Here, guidance on how social and cultural constructs may link to one another is critical in promoting consistency across interventions, in order to achieve sustainable, scalable and effective outcomes from implementation.44,45 We suggest that these themes be considered in the broader context of implementation of change in what is a complex, dynamic system, guided by well- established frameworks.<sup>45</sup> Perhaps the most cited and widely used implementation framework in health is the consolidated framework for implementation research (CFIR), which builds on decades of extensive research, theories and frameworks across disciplines, organised into a single framework.46 In CFIR, five domains are situated in a theory-based, practical approach for systematically assessing potential barriers and facilitators in implementing interventions for advancing women in leadership.46 Our themes generated in this study, potentially link to the theoretical domains of the CFIR and, we propose, may help guide future implementation. Theme I on leadership commitment and accountability theoretically aligns with the CFIR domains of outer and inner settings, where indicators of organisational commitment to implementing an intervention, and leadership engagement are important determinants of implementation success. 46,47 Theme 2 on intervention fit and fidelity aligns with the individual CFIR domain (where knowledge and beliefs of the

workforce around interventions are of importance), <sup>46</sup> as well as with the CFIR *process* domain, that highlight the potential mechanisms for connecting an intervention with its setting to support effective implementation. <sup>46</sup> Finally, theme 3 on organisational cultural climate and readiness, aligns with the CFIR domain of *inner setting* (structure, networks, communication, culture, climate and readiness). <sup>46</sup> The alignment between our themes and the CFIR implementation domains, supports the practical relevance of this study and may guide future efforts in this area. Dedicated implementation research is now needed to further the insights emerging from this meta-ethnography.

This work is limited by our focus on interventional studies that only seek to advance women in leadership (as an element of gender equity), thus limiting our search strategy and study selection criteria. Heterogeneity in interventions, their contextual factors (such as the health systems in which they occurred), as well as study design for methods of data collection and analysis, precluded our ability to compare studies. Despite this, every effort was made to ensure that an extensive data base search was undertaken to ensure thorough coverage of the topic. Quality appraisal methods highlight the existing challenges around the propriety of appraising qualitative studies. The CASP tool was used to enable a dialogue on whether a single study provides sufficient depth and meaning to this work, acknowledging the limitations of CASP. Qualitative data extracted from primary studies, bring their own limitations including a lack of consideration of intersectionality, nonbinary classification of gender, and reproduction of conventional framing of women as disadvantaged. A lack of comparative studies also limited the identification of themes exclusively specific to the sector. However, we have identified, defined, and interpreted themes, thus enhancing current understanding of leverage points for change. Moving forward, dedicated implementation studies will need to build on and strengthen the conceptual and pragmatic value of this work.

Finally, while good qualitative research often depends on the coherent analysis of different types of data, limitations still exist within interpretative methodologies. As with all interpretivist methodologies, words (such as in the data analysed) are privileged and grounded in the notion that they reflect multiple subjective realities, including our own as researchers. We acknowledge that in the process of producing new knowledge, and arriving to conclusions on what may be needed to improve the implementation of gender equity interventions in organisations, our methodological decisions are informed largely by our own subjective experiences and tacit knowledge on the subject matter. However, this subjectivity is moderated by rigorous reporting of our methods, and the employment of reflexive practice, made explicit in this study. As researchers, clinicians and professionals who work in

the sector, advancing gender equity for women in healthcare leadership motivates our research and is in essence our 'research praxis', and part of our broader effort to improve outcomes for women in health.

The themes in this meta-ethnographic study highlight factors relevant to health organisations in the implementation of gender equity interventions that advance women in leadership. Most importantly, simple integration of effective interventions into healthcare settings will be strengthened by recognising and addressing these core themes in implementation, aligned to the CFIR domains. Organisations are likely to need to meaningfully encompass leadership commitment and accountability from the highest levels and throughout the organisation with an inclusive leadership culture. Similarly, sustainable and successful interventions cannot be achieved unless efforts consider the priorities and needs of women and the potential impacts of organisational interventions on them. As such, intervention fit goes hand in hand with addressing the needs of women, including the reality of their working lives and capacity to lead, while also challenging and addressing the dominant gendered perspectives in healthcare, medicine and academic medicine that prevent progress. Indeed, as this work progresses, it becomes increasingly clear that, for men and women to equally become the mainstay of the sector, the support of male colleagues and members is critical in effecting this change.

This work extends past research on advancing women in leadership by integrating empirical evidence from our systematic literature review with pragmatic themes that illustrate how health organisations can implement, interventions that support women sustainably. Future research to address identified limitations and focus on implementation for integrating and building on these themes and capturing the key elements as they map on to the CFIR will be important to advance this field further. This will allow more considered mapping of these meta-ethnography themes into practical guidance for implementation and scale up.

There is an increasing focus on effective organisational interventions that measurably advance women in leadership. A systematic literature review and meta-synthesis showed which interventions were evidence based at an organisational level for advancing women in leadership across diverse industry settings. This meta-ethnographic study builds on this and offers important conceptual insights on factors relevant to the successful implementation of interventions to advance women in leadership within the healthcare, medical and academic medical sector. These factors include the role of: 1) leadership commitment and accountability; 2) intervention fit and fidelity; and 3) the cultural climate and organisational readiness for change. This work informs a largescale collaboration led by a multidisciplinary and multisector team of clinicians and academics engaging health services, colleges and government, with competitive funding (NHMRC#1198561) to support implementation.

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### Contributors

M.M. conceptualised the study, collected the data, conducted the analysis and prepared the manuscript. H.S., J.B and G.C provided intellectual input and revised the manuscript. H.T. led funding acquisition, H.T and K.R. contributed to interpretation in the analysis, provided intellectual input and managed the scope of the manuscript. Final approval was sought from all authors prior to submission.

# Data sharing statement

All the studies included were published and data are included in the manuscript. For any query the corresponding author can be contacted.

# **Declaration of interests**

We declare no competing interests.

# Supplementary materials

Supplementary material associated with this article can be found in the online version at doi:Io.IoI6/j. eclinm.2022.IOI5I4.

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