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Women and Men Professors as Role Models and their Effect on Academics' Career Decisions

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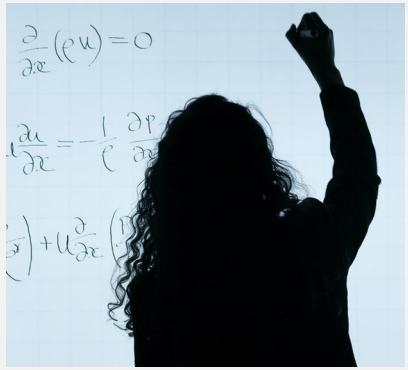
Introduction



24.5% of German sport professors are women
(Federal Statistical Office, 2022)

Women faculty members in sport management

Women Assistant Professors
46.8%
Sailofsky et al. (2022)

Women Full Professors
37%
Sailofsky et al. (2022)

Women co-authors in sport management, economics, and sociology (SMES) journals

European Sport Management Quarterly (2001-2012)
25%
Pitts et al. (2014)

Journal of Sports Economics (2015-2019)
10.6%
Gomez-Gonzalez et al. (2022)

European Journal for Sport and Society (2004-2020)
27.7%
Wicker et al. (2022)

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Introduction

- Women are underrepresented in academic disciplines which are men-dominated and afflicted with masculine stereotypes and quantitative research methods (Bettinger & Long, 2005; Diekman et al., 2010)
- Sport is perceived as a masculine field (Messner, 2002)

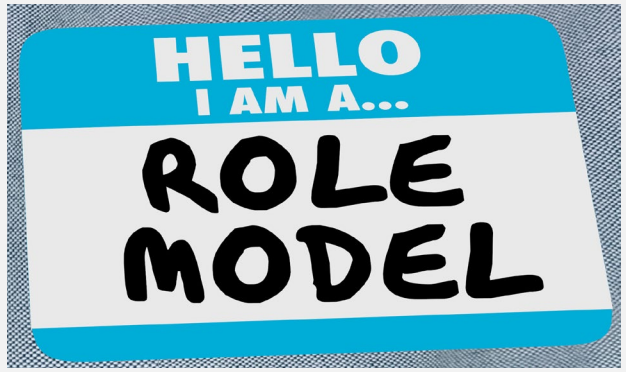
How can the share of women in SMES be increased?

a) By reducing gender stereotypes and optimize the perception of role fit (Heilman et al., 2012)

b) By giving women students and young women academics women role models within academica (Cheryan et al., 2012)

"people need to know that someone like themselves has been able to achieve success, to encourage them to strive for similar accomplishments" (Lockwood, 2006, p. 36).

Introduction



- Women role models have a positive effect on women in gender stereotyped disciplines (e.g., Stout et al., 2011; Young et al., 2013)

Same-gender role models are more important for women in academia than for men (Lockwood, 2006)

Women are more likely to chose other-gender role models than men (Wohlford et al., 2004)

RQ1: Are there gender differences in the perceptions of role model attributes of women and men professors in SMES?

RQ2: How do role model attributes influence women‘s and men‘s choice of women and men professors as role models?

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Introduction

- Role models have an inspirational effect on behavioral imitation (Nauta & Kokaly, 2001)

- Women role models in men-dominated disciplines showcase women that it is possible to overcome stereotypes and achieve success (Lockwood, 2006)

RQ3: How do women and men professors as role models influence career objectives of women and men in SMES?

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Theoretical framework

WISEMS

Social cognitive theory (Bandura, 1977; Schunk & Usher, 2019)

Individuals learn skills, knowledge, behaviors and associated consequences by observing and interacting with others, preferably persons with status and power

Selection of role models

Achievements and competences

- Outstanding success: Inspiring to individuals who are interested in the same discipline (Lockwood & Kunda, 1997)
- Competence central for learning processes of observers (Bandura, 1977) and being selected as a role model (Marx & Ko, 2012)

Perceived similarity

- Same-gender role models: Feeling that the observed behaviour is appropriate (Schunk & Usher, 2019)
- Women students perceive women professors as more positive role models (Young et al., 2013)

Intention to imitate

- Observed behaviour is selected based on beliefs what will help to achieve personal goals (Schunk & Usher, 2019)
- Has only been investigated in the context of students' academic decisions (Naura & Kokaly, 2001)

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Theoretical framework

WISEMS

Social cognitive career theory (Lent & Brown, 1996; Lent et al., 1994)

Presence or lack of a role model have an indirect influence on career objectives and outcomes by influencing an individual's interests, self-efficacy, and outcome expectations

Role of role models in academic career development

Gender does not matter?

- Simple presence of a role model, regardless of gender, is positively related to students' career objectives (Young et al., 2013)
- Women and men role models were equally effective in developing women's interest in computer science (Cheryan et al., 2012)

Same-gender does matter?

- Women role models…
  - have a positive effect on women students' major choice (Ashworth & Evans, 2001)
  - increase women's interest in a men-dominated discipline (Bettinger & Long, 2005)
- Men students with a man role model were more likely to major in women-dominated disciplines (Bettinger & Long, 2005)

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Method

- Online survey of under- and postgraduate, PhD students, Post-doc researchers, and professors in SMES
- June 2022 – January 2023
- **Distribution**
  - via Twitter/email after seven conferences in SMES
  - approx. 300 emails to academics in SMES at universities in Australia, Austria, Canada, Germany, Switzerland, UK, US
- *n*=792 (m=468; w=324)

- Scale reliability using Cronbach‘s alpha
- Descriptive statistics for subsamples of women and men
- Test for differences in the perception of role model attributes using Mann-Whitney-U-Test
- Logistic and log-linear regression models (choice of role models)
- Linear regression models (impact of role models on career objectives)

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Method

Variable	Description and codes
Role model variables	
Woman role model	Respondent has a woman professor as role model (1=yes)
Man role model	Respondent has a man professor as role model (1=yes)
No. women role models	Number of women professors as role models
No. men role models	Number of men professors as role models
Women_Achievements	Women professors role model achievements index (1=strongly disagree; 5=strongly agree [1-5])
Men_Achievements	Men professors model achievements index (1-5)
Women_Similarity	Women professors role model similarity index (1-5)
Men_Similarity	Men professors model similarity index (1-5)
Women_Imitation	Women professors role model intention to imitate index (1-5)
Men_Imitation	Men professors model intention to imitate index (1-5)
Career objectives	
Academic_Career	Respondent wants to pursue/continue an academic career (1-5)
Uni_Longterm	Respondent wants to work at a university in the long-term (1-5)
Become_Prof	Respondent wants to become a professor (1-5)
Individual characteristics	
Student	Respondent is a under- or postgraduate student (1=yes)
PhD student	Respondent is a PhD student (1=yes)
Post-doc	Respondent is a Post-doc researcher (1=yes)
Professor	Respondent is a professor (1=yes)
Management	Sport management is part of respondent's study/research (1=yes)
Economics	Sport economics is part of respondent's study/research (1=yes)
Sociology	Sport sociology is part of respondent's study/research (1=yes)
Science attitude	Science attitude index (1-5)
Age	Age (in years)
7x Country variable	Respondent studies/works at a university in Germany/US/Canada/Australia/Austria/UK/Other_Country (1=yes)

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Results

WISEMS

Differences between average women's (n=324) and men's (n=468) perception of role model attributes for women and men professors
(*p<0.05; **p<0.01; ***p<0.001; [a]results of the Mann-Whitney-U-test)

	Women professors			Men professors		
Items	Women	Men	z[a]	Women	Men	z[a]
Achievements/Competence						
Competence	4.34	4.08	-4.128***	4.03	4.00	-0.387
Success	4.04	3.93	-1.728	4.02	3.94	-1.528
Good teachers/supervisors	4.24	4.01	-3.775***	3.65	3.77	-1.654
Good presenters	4.10	3.91	-3.088**	3.63	3.73	-1.235
Many publications	3.51	3.60	-1.361	3.76	3.74	-0.783
Income from grants	3.06	3.19	-2.359*	3.38	3.28	-1.649
Well-known	3.25	3.37	-2.213*	3.60	3.54	-1.403
Power	3.27	3.36	-1.497	3.75	3.70	-1.164
Leadership qualities	4.03	3.77	-4.072***	3.64	3.67	-0.589
Promote interest in research	3.84	3.80	-0.902	3.70	3.70	-0.028
Moral/ethical behavior	4.24	4.04	-3.023**	3.63	3.78	-2.167*
Perceived similarity						
Similar to prof	3.34	2.92	-5.603***	2.54	3.22	-9.052***
Dissimilar to prof (r)	3.20	2.80	-5.069***	2.62	2.92	-4.279***
Admire/identify with prof	3.49	3.19	-3.753***	2.92	3.24	-4.142***
See profs as experts	3.66	3.54	-2.208*	3.07	3.48	-5.759***
Intention to imitate						
Trying to be like prof	3.07	2.82	-2.772**	2.68	3.04	-4.112***
Prof as mentor	2.78	2.69	-0.835	2.85	3.10	-2.454*

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Results

WISEMS

Choice and number of women and men professors as role models by women and men: Significant results (all effects are positive)

Respondent has a woman role model

♀		♂
***	Intention to imitate	***
***	Professor	
	PhD student	***
	Science attitude	*
	US / Australia	***

Respondent has a man role model

♀		♂
	Perceived similarity	*
***	Intention to imitate	***
*	Canada	
	US / Australia	***

Number of women role models

***	Intention to imitate	***
***	Professor	
	PhD student	***
	Sport management	*

Number of men role models

***	Intention to imitate	
	Science attitude	*
	US / Australia	*** / *

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Results

Regression results for career objectives of women and men: Significant results (all effects are positive)

I want to pursue an academic career		
♀		♂
***	Woman role model	
***	Number of women role models	
***	Man role model	*
***	Number of men role models	

I want to become a professor		
♀		♂
***	Woman role model	
***	Number of women role models	
***	Man role model	*
***	Number of men role models	*

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Conclusion

WISEMS

In a nutshell

- „Countable“ research output tends to be attributed to men, while women professors seem to be marginalized as teachers (Mitchel & Martin, 2013)
- Women professors are perceived more controversially than men professor
- Women chose their role models based on what they think they can learn (Schunk & Usher, 2019), while men also include the perceived similarity in their role model selection process
- For career objectives, (more) women and men role models are important for women, while only same-gender role models are related to men‘s career development

Contribution

- Previous studies
  - focussed on perceived similarity and women‘s career objectives (e.g., Nauta & Kokaly, 2001)
  - focussed on STEM diciplines
  - Focussed on students
  - had small sample sizes

Implications

- Gender equality policies and measures are important to have enough women role models at sport faculties
- Both genders would benefit from an increased representation of women professors in SMES
- Break down stereotypes and the perception of men-dominated disciplines as not appropriate for women (Diekman et al., 2010)

Thanks for your attention!

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