

Publication pressure and burn out among Dutch medical professors

J.Tijdink¹, Y.M. Smulders¹, A.C.M. Vergouwen².

¹ Free University Medical Centre (VUmc), Amsterdam, The Netherlands.

² St. Lucas Andreas Hospital, chief of residency, department of psychiatry, Amsterdam, The Netherlands.



Introduction

- Publication of scientific research papers is important for professionals working in academic medical centres and is a key activity in academia.
- There appears to be increasing focus on quantitative output measures, where these output measures determine status and prestige and serve to rank universities as well as individuals.
- Overemphasis on Impact Factors and Hirsch indices could generate pressure that may adversely influence science quality and personal well-being of scientists [1-3].

This research aims to address the publication culture in the Netherlands and its consequences for science and personal well-being

Methods

We performed an online survey inviting all Dutch medical professors (n=1206) to complete 2 questionnaires:

- Publication Pressure Questionnaire (PPQ, 24 statements, 5 point Likert Scale)
 - 1.personally experienced publication pressure
 - 2.publication pressure in general terms as perceived by the respondent.
 - 3.publication pressure on scientist's position/status
- Maslach Burnout Inventory

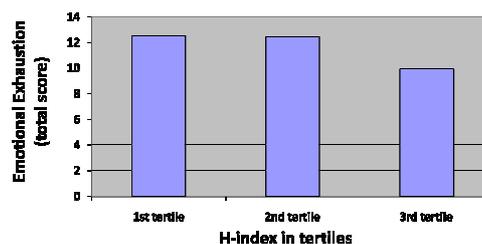
Results

Demographics			
		N=437	%
Gender	Male	345	79
	Female	92	21
Age	26-45	36	8
	46-55	206	47
	56 and older	195	45
Marital status	Married or cohabiting	401	92
	Single	36	8
Home living children	None	217	50
	1	56	13
	2	96	22
Years of professorship	3 or more	68	15
	0-5	150	34
	6-10	129	30
Nr. 1 Work priority	11-15	86	20
	15 or more	72	16
	Research	255	59
Appointment	Education	40	9
	Management	79	18
Appointment	Temporary	144	33
	Permanent	293	67

Key Statements

Statement	Agree on Likertscale
I suspect that in some colleagues publication pressure leads to (if not intentional) manipulation of data.	33.5%
Worldwide leads publication pressure to serious doubt on validity of research results.	38.1%
I think the pressure to publish has become too high.	53.8%
My colleagues mainly judge me on my publication record	21.6%
The urge to publish makes science ill	26.1%

- 24% of the professors has a burn out
- Higher scores on publication pressure correlates with higher scores on emotional exhaustion and depersonalisation (p < 0,001)
- Hirsch index (>38) is negatively correlated with burn out (p<0,01)



Conclusion

- A substantial proportion (>30%) of medical professors believes that publication pressure has become excessive, and are developing a cynical view on the validity of medical science.
- Perceived publication pressure can adversely affect validity and reliability of the medical literature.
- These perceptions are statistically correlated to emotional exhaustion and other burn out symptoms.
- H-index is negatively correlated with emotional exhaustion
- Further research should address the effects of publication pressure in more detail and identify alternative ways to stimulate quality of medical science.

References and contact information

Please contact j.tijdink@vumc.nl for further details
Conflict of interest: the authors declare no conflict.

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