



The belief that masculinity has a negative influence on one's behavior is related to reduced mental well-being

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ABSTRACT

Objectives: Masculinity is sometimes presumed to be a cause of mental health problems and antisocial behavior in men. This study sought to identify the predictors of men's mental well-being, including their attitudes to masculinity.

Methods: 4,025 men from the UK and Germany (GDR) were asked about their core values, which areas of their life they felt were important, and their opinions about masculinity., Their mental well-being was measured using the Positive Mindset Index (PMI). Multiple linear regression assessed the degree to which their answers were linked to their mental well-being.

Results: The results in both countries were similar. The main predictors of higher PMI scores were Personal Growth Satisfaction (UK β = 0.211; t = 6.146; P < 0.0000005; GDR β = 0.160; t = 5.023; P < 0.000001), Age (being older) (UK β = 0.150; t = 4.725; P < 0.00001; GDR β =0.125; t = 4.075; P < 0.00005), not taking a Negative view of Masculinity (UK β = 0.101; t = -3.458; P < 0.001; GDR β = -0.118; t = -4.014; P < 0.0001), and Health Satisfaction (UK β = 0.124; t = 3.785; P < 0.0001; GDR β = 0.118; t = 3.897; P < 0.0001). In addition, in the UK, Education Satisfaction was the fourth strongest predictor of PMI (β = 0.105; t = 3.578; P < 0.0005), and in Germany, Having a Positive View of Masculinity was the fifth strongest predictor of PMI (β = 0.097; t = 3.647; P < 0.0005).

Conclusions: These findings are discussed in relation to whether the negative view of masculinity often cited in the media and elsewhere is having a negative impact on men's mental health.

Keywords: Masculinity; well-being; men's mental health; personal growth; age

Introduction

In the history of psychology, to the degree that masculinity was noticed at all, it had generally been seen in a relatively benign and described in recognizable terms, characterized by adjectives such as "active," "dominant," "self-contained" and "aggressive." [1] This began to change around the 1980s, with masculinity being increasingly constructed as "misogynistic" and "homophobic," [2] bad for physical and mental health and even connected to sexual assault perpetration. [3] This blurring of benign adjectives with undesirable traits was influenced by ideas imported from sociology, such as patriarchy theory, "hegemonic masculinity," [4] and male power and privilege, [5] and created what is known as the "deficit model" of masculinity. [6]

Although these negative constructions of masculinity have spread to the media and many institutions worldwide (e.g., much of academia, the media and government), there are signs

that such ideas are not so popular outside these institutions. For example, a survey of 203 men and 52 women found that around 80% of participants thought the term "toxic masculinity" insulting, probably harmful to boys, and unlikely to help men's behaviour.[1] In fact, there is evidence that masculinity can be beneficial to mental health.^[7] For example, greater acceptance of traditional masculinity has been found to be significantly associated with better self-esteem and mental well-being,[1] and a study of men in Lithuania found that masculinity is protective against suicide risk. [8] However, there is a tendency in academia to overlook evidence that masculinity can be beneficial to mental health. For example, a systematic review found six studies of men-on average around 45 years old-who used male-typical strategies (such as self-reliance, taking control, and seeing the experience as a heroic struggle) as ways to cope with depression, but the review minimised the value of this finding based on not wanting to pressure men to "meet hegemonic ideals [and] reproduce traditional gender relations and power imbalances."[9] This minimisation of the value of behaviors when they are associated with men is an aspect of a recently identified cognitive distortion called *gamma bias*,^[10] which appears to be relatively widespread.^[11]

Despite the known benefits of masculinity, the majority of masculinity researchers are locked into the "paradigm fixation" of presuming that masculinity is not to be valued. [12] Although their findings are typically unconvincing, the sheer number of papers they produce, and the eagerness of the media to promote such findings, create the widespread impression that there must be some be something wrong with masculinity.

Since the 1990s there has been a movement within psychology toward a more balanced view of masculinity, characterized by the Positive Psychology/Positive Masculinity model in the US.^[13] This has been followed by the development of male psychology as an academic field in the UK.^[14] The basic idea behind these views, which are based mainly on clinical, social, evolutionary and humanistic psychology, is that there is more to be gained by recognizing and utilising the positive aspects of masculinity rather than focusing only on the negative. There are growing signs of mainstream psychology questioning-and rejecting-the deficit model.^[15,16]

A popular aspect of this more positive view of masculinity has been Harry's Masculinity Reports, which surveyed the views of 2000 men in the UK in 2017 and 5000 men in the US in 2018. These surveys have in common the findings that the core values most important to men are honesty and reliability, and the things that are most associated with men's mental well-being are job satisfaction, being older, and taking an interest in one's health. These findings are in stark contrast to the conclusion found by studies using negative definitions of masculinity. The Harry's surveys have been met with an overwhelmingly positive response from the media and the public. [17]

The present survey of around 2000 men in the UK and around 2000 men in Germany aimed to discover the factors that predict men's mental well-being. The hypotheses were that:

- 1. Mental well-being will be predicted by satisfaction with key aspects of life (such as work and health)
- 2. Mental well-being will be predicted by age
- 3. Mental well-being will be predicted by views on masculinity.

Methods

Design

This study is a cross-sectional online survey analyzed using multiple linear regression. Demographic variables (e.g., age, educational level) were used as predictors. The dependent variable was mental positivity, measured on the Positive Mindset Index (PMI). Data were analyzed using SPSS software, Version 27.

The survey was similar to the previous two Harry's surveys^[18], though like each survey in Harry's series, had adaptations: 7 news items assessing *Satisfaction with value domains*, and 15 items on masculinity (see below).

Participants needed to answer all questions, i.e., there was no option to skip any. The questionnaire used by the UK 2021 sample was translated into German for the Germany 2022 sample.

Variables

Dependent variable

The dependent variable in this study is mental positivity, measured using the PMI. [19] This self-report scale consists of six items (happiness, confidence, being in control, emotional stability, motivation, and optimism) on a 5-point Likert scale. The scale is short, easy to use, and shows good psychometric properties, for example, good internal reliability (Cronbach's alpha = 0.926) and good concurrent validity with the psychological subscale of the SF-12 (r = 0.678) and other validated measures of mental health, suicidality, and well-being. [20]

Predictor variables

Age

Age was measured in years, and for some analyses was categorized into 5-year age groups (18–23, 24–29 etc.).

Gender

There were four options: male, female, identify in another way, prefer not to say.

Sexual orientation

There were three options: heterosexual or straight; gay or lesbian; bisexual; or other. For the purpose of analysis, these were combined into the two categories of "heterosexual" and "non-heterosexual."

Relationship status

Relationship status was operationalized as a single, married, domestic partnership, separated, divorced, widowed, prefer not to say. For the purpose of analysis, two categories were created: "married and domestic partnership," and "single, separated, divorced, widowed."

Parent status

The number of children was given, and coded into 1=has one or more children; 0=has no children.

Military service

Several options were given [Table 1]. These were coded into 1= "active duty now or in the past," or 0= "basic training only, or no training."

Table 1: Descriptive statistics for the UK sample (n = 2023) and German sample (n = 2002), with slight variation in N where information was missing.

Variable UK n Age groups 18-25 years old 253 12.5 199 10.0 26-41 years old 658 32.6 488 24.5 42-57 years old 27.3 28.5 552 567 58-76 years old 506 25.0 676 34.0 77-99 years old 51 2.5 61 3.1 Age (mean, SD) 49.82 (17.02) years old Gender 2018 99.8 2002 100 Male I identify in another way 2 0.1 0 0 3 0.1 0 0 Prefer not to say Marital Status Single 659 32.7 527 26.7 Married 931 46.2 917 46.4 Domestic Partnership 236 11.7 273 13.8 Separated 40 2.0 40 2.0 Divorced 118 5.9 178 9.0 Widowed 33 1.6 41 2.1 Occupation High managerial, admin or professional 214 10.6 156 7.8 Intermediate managerial, admin or 389 19.2 305 15.2 professional 18.7 9.7 Supervisor, admin or professional 379 195 Skilled manual worker 328 16.2 466 23.3 Semi-skilled or unskilled manual worker 250 12.4 136 6.8 House-wife/house-husband 19 0.9 41 2.0 Unemployed 151 7.5 102 5.1 Student 30 1.5 79 3.9 Retired on a state pension 59 2.9 478 23.9 Retired on a private pension 204 10.1 44 2.2 Sexuality Heterosexual or straight 1803 89.1 1735 86.7 Gay or lesbian 99 4.9 105 5.2 Bisexual 87 4.3 78 3.9 Other 34 1.7 84 4.2 GDR region currently living in Baden-Württemberg 219 10.9 Bayern 243 12.1 Berlin 6.4 128 Brandenburg 62 3.1 Bremen 36 1.8 Hamburg 66 3.3 Hessen 142 7.1

Table 1: (Continued).

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Variable	U	K	GI	OR		
	n	%	n	%		
Mecklenburg-Vorpommern			48	2.4		
Niedersachsen			176	8.8		
Nordrhein-Westfalen			434	21.7		
Rheinland-Pfalz			97	4.8		
Saarland			27	1.3		
Sachsen			110	5.5		
Sachsen-Anhalt			71	3.5		
Schleswig-Holstein			78	3.9		
Thüringen			65	3.2		
UK region currently living in						
Northern Ireland	42	2.1				
Scotland	163	8.1				
North-West	199	9.8				
North-East	107	5.3				
Yorkshire & The Humber	166	8.2				
Wales	113	5.6				
West Midlands	202	10.0				
East Midlands	134	6.6				
South-West	159	7.9				
South-East	270	13.3				
Eastern	149	7.4				
London	319	15.8				
Number of children						
None	749	37.0	838	41.9		
One	462	22.8	451	22.5		
Two	535	26.4	488	24.4		
Three	177	8.7	142	7.1		
Four or more	89	4.4	70	3.5		
Prefer not to say	11	0.5	13	0.6		
Military service						
Non military	1432	70.8	849	42.4		
Military experience (any)	591	29.2	1153	57.6		
Political views (GDR only)						
SPD			531	26.5		
CDU			301	15.0		
CSU			85	4.2		
GRÜNE			189	9.4		
FDP			224	11.2		
AfD			233	11.6		
LINKE			150	7.5		
Other			47	2.3		
No party represents my views			242	12.1		
Political views (UK only)						
Conservative	638	31.5				
Labour	695	34.4				

(Contd...)

(Contd...)

Table 1: (Continued).

Variable	UK		GI	OR
	n	%	n	%
Scottish Nationalist	92	4.5		
Liberal Democrat	148	7.3		
Green	90	4.4		
Other	57	2.8		
No party represents my views	303	15.0		
Income				
Under 24,999 €	643	31.8	462	24.5
25,000–49,999 €	764	37.8	760	40.3
50,000–74,999 €	319	15.8	396	21.0
75,000–99,999 €	163	8.1	150	8.0
100,000–149,999 €	70	3.5	76	4.0
150,000–199,999 €	29	1.4	27	1.4
200,000 or more €	35	1.7	14	0.7

Employment status

The options are shown in Table 1. These were coded with 1= "working full-time" as the reference category, and others coded as 0.

Educational level

The options are shown in Table 1.

Political views

Participants were asked to identify which political party they supported, if any, from a list [Table 1].

Income

Participants were asked about their gross annual income.

Region

Participants stated which of the 12 regions of the UK, or 16 regions of Germany, they currently lived in.

Value domains

Value domains were operationalized as per previous research^[21] and included one new domain, Personal Growth. The nine domains were: Work, Friendships, Romantic Relationships, Family, Sports and Leisure Activities, Health, Community, Education and Personal Growth. Each domain was described by several items, for example, the Sport and Leisure Activities domain asked how important winning, fun, feeling healthy, etc., were to participants. These items were very slightly modified from the previous Harry's report (US, 2019) for the present study.

Psychometric properties of the value domains

The nine value domains showed satisfactory psychometric properties. For example, principal component analysis with oblimin rotation, as described previously, [22] found that all item loadings were over the threshold of >0.4, and 94% of the items had loadings >0.6. The Cronbach's alphas for the domains ranged from 0.875 to 0.935, which are all above 0.7, which is the usual threshold of acceptability. [23] The Pearson's correlations between the domain scales were all positive and around r = 0.6 in both countries, indicating acceptable convergent validity [Supplementary Tables S1 and S2].

Satisfaction with value domains

Related to each of the nine domains was a single item (as advocated by Wanous *et al.*,)^[24], asking, for example, *How satisfied are you with your job?* The Likert-scaled options were from 6 = Highly satisfied to 1 = Highly dissatisfied, or, for some items, "not applicable."

Masculinity

In addition, this survey included 15 items on masculinity. These were created for this study by John Barry and the Harry's team.

Psychometric properties of the beliefs about masculine behavior subscales

The 15 masculinity items were analyzed using principle component analysis with oblimin rotation (as described by)[22] to identify subgroups clustering within the items. Rotation converged in seven iterations and three subscales emerged, characterized as "men thinking that masculinity has a negative impact on them," "men thinking that masculinity has a positive impact on them," and "masculinity is irrelevant these days." Supplementary Table S3 shows that item loadings for all three subscales were over >0.6, which is considered acceptable. The Cronbach's alphas were 0.895 for the Negative View of Masculinity Cronbach's alpha, and 0.682 for the Positive View of Masculinity, both of which can be considered acceptable values by some authors, [25] though the latter is very slightly below the usual threshold of 0.7^[23] The Cronbach's alpha for the Masculinity is Irrelevant subscale was 0.474, which is well below the threshold of acceptability, but this subscale is included below for the reader's information.

The items in the three subscales were:

Negative View of Masculinity

- Masculinity prevents me from recycling and other environmentally friendly behaviours
- Masculinity prevents me from taking safety precautions related to Covid-19
- Masculinity makes me inclined to be violent toward women
- Masculinity prevents me from talking about how I feel about my problems.

Positive View of Masculinity

• The idea of "traditional masculinity" may have a helpful impact on boys if they hear or read about the term

- Masculinity makes me inclined to be protective towards women
- Masculinity makes me want to be strong for my family.

Masculinity is Irrelevant

- Traditional masculinity (being strong, in control of my emotions, and earning a good amount of money) is outdated in today's society
- Masculinity has got nothing to do with how I go about my daily life.

The items that did not fit into these three subscales were:

The idea of "toxic masculinity" may have a helpful impact on boys if they hear or read about the term; Not being understood or respected prevents me from talking about how I feel about my problems; The things I buy should reflect my views on masculinity; My favourite brands and companies should drive the conversation around mental health forward; I like answering questions about masculinity; Changes to the English language, such as the use of "aviator" instead of "airman" or "airwoman" are helpful to me. [The German version of the final item asked about "Recent changes to the German language, such as the use of the 'gender star'].

Setting

The setting was online.

Participants

Participants were men aged over 18. They were recruited from a panel of thousands of people across the UK and Germany by *Savanta*, a professional data collection company with a professional membership and ISO certification. A quota sample of men, stratified by age and national region in each country were recruited.

Exclusion criteria

- Not meeting age and gender criteria
- Not indicating consent to participate

Procedure

During December 2021 in the UK, and January 2022 in Germany, potential participants who met the inclusion criteria for this study were identified from the research panel. These people were contacted by Savanta, and the study ran until the quota was reached. The recruitment quotas were achieved after several days. Survey data were collected using Savanta's survey software.

Ethics

Informed consent was given before the survey could be started. Participants were informed that they could withdraw from the study at any point. Participants were not required to give any

identifying information, such as contact details. The data were confidential and treated in accordance with the Data Protection Action (1998). For any participants who might have become upset due to reading the survey questions, contact details for support were given in the patient information section of the survey (info@wellbeingofmen.com). The survey followed the British Psychological Society (BPS) code of human research ethics (BPS, 2021). Ethical approval for the study was granted by an independent expert after review, as per Section 12 of the BPS code of ethics.

Statistics

Means and SDs and parametric tests were used where relevant assumptions were met. Data were analyzed pairwise so that where a participant gave some information but had not given responses to all items, data for the responses they gave could be included in the analysis. Participants who completed the survey in an unrealistically fast time (210 s or lower) were excluded from the analysis. Based on the central limit theorem, [26] the sample size was sufficiently large for parametric tests to be used regardless of the shape of the distribution.[27] To detect a moderate effect size with 80% statistical power, a minimum of 100 participants are needed for Pearson's correlations.[28] and around 500 participants were needed for multiple linear regression.^[23] The predictors of mental positivity were identified using the enter method with multiple linear regression. For the main analyses, the significance threshold was P < 0.01, two-tailed, as per the previous Harry's reports.[18] Subscales were identified in the new masculinity items using principle component analysis. All statistical analyses were carried out using SPSS statistical software for Windows, Version 27 (IBM Corp, Armonk, NY, USA).

Results

The final sample consisted of 2023 men in the UK and 2002 men in Germany. Their demographic characteristics are shown in Table 1.

Table 1 shows that the UK and German samples were similar in most variables. The sample had been stratified by age and national region in each country, and typical of the national differences in average age in each country, the mean (\pm SD) age of the UK sample was slightly younger than the German sample (UK: 45.0 ± 16.6 ; GDR: 49.8 ± 17.0). Correspondingly, the percentage of men who retired was higher in Germany (26%) than in the UK (13%). Around 30% of men in both countries were single, and almost half were married. Around half of the participants in both countries were in occupations that could be categorized at the level of the intermediate or skilled manual. Almost 100% of the participants in both countries identified as male, and around 90% in each country were heterosexual. Around 40% of the men had no children, and about 45% of them had either one or two children. Around

twice as many men had some experience of military service in Germany (58%) compared to the UK (29%), as would be expected given obligations in each country. In Germany, there was a greater spread of interest in different political parties, though overall the political interests represented by these parties were similar in each country, with a slight leaning to mainstream centre-left parties in each country. The income bracket most typical of participants was 25,000–50,000 (pounds and Euros), which was representative of around 40% of men in both countries.

Core values

Participants were presented with a list of 35 values (e.g., loyalty, honesty, etc.) and asked how important to them each were on a scale from 1 to 6, where 6 indicates "very important" were shows that three of the top four values most aspired to be honesty, being respectful, and being reliable.

Table 2b compares the findings in Table 2a to the top and bottom-rated values from the two previous Harry's surveys.^[18]

Table 2a: Mean and SD self ratings on core values, in order of most aspired to by UK and German men

	UK			GDR	
Core Value	Mean	SD	Core Value	Mean	SD
Q.7 Honest	4.95	1.240	Q.7 Honest	5.19	1.163
Q.19 Respectful	4.80	1.179	Q.2 Reliable	5.03	1.354
Q.3 Loyal	4.76	1.280	Q.19 Respectful	4.95	1.124
Q.2 Reliable	4.72	1.317	Q.15 Positive	4.84	1.107
Q.30 Listening	4.69	1.094	Q.35 Thoughtful	4.84	1.074
Q.35 Thoughtful	4.67	1.080	Q.1 Dependable	4.81	1.543
Q.25 Loving	4.67	1.185	Q.3 Loyal	4.80	1.249
Q.15 Positive	4.67	1.207	Q.30 Listening	4.77	1.070
Q.4 Committed	4.66	1.214	Q.16 Optimistic	4.70	1.134
Q.6 Consistent	4.64	1.168	Q.29 Equality	4.65	1.240
Q.5 Open-minded	4.59	1.209	Q.26 Nurturing	4.65	1.145
Q.8 Efficient	4.58	1.192	Q.25 Loving	4.64	1.149
Q.16 Optimistic	4.57	1.201	Q.14 Motivated	4.63	1.103
Q.28 Empathetic	4.52	1.181	Q.6 Consistent	4.60	1.118
Q.14 Motivated	4.51	1.204	Q.11 Humorous	4.60	1.170
Q.29 Equality	4.49	1.254	Q.23 Educated	4.57	1.161
Q.31 Quiet Confidence	4.48	1.142	Q.12 Fun-loving	4.55	1.169
Q.27 Humble	4.47	1.196	Q.33 Collaborative	4.55	1.104
Q.23 Educated	4.46	1.192	Q.4 Committed	4.52	1.141
Q.24 Respected	4.46	1.227	Q.28 Empathetic	4.52	1.153
Q.32 Improvement	4.45	1.143	Q.34 Future-facing	4.47	1.118
Q.11 Humorous	4.44	1.206	Q.8 Efficient	4.46	1.131
Q.1 Dependable	4.42	1.470	Q.5 Open-minded	4.45	1.200
Q.18 Passionate	4.40	1.232	Q.32 Improvement	4.37	1.092
Q.34 Future-facing	4.38	1.174	Q.18 Passionate	4.35	1.209
Q.26 Nurturing	4.38	1.219	Q.17 Inspiring	4.27	1.159
Q.12 Fun-loving	4.36	1.227	Q.27 Humble	4.27	1.192
Q.33 Collaborative	4.34	1.178	Q.31 Quiet Confidence	4.23	1.149
Q.17 Inspiring	4.31	1.240	Q.9 Innovative	4.23	1.187
Q.9 Innovative	4.22	1.243	Q.10 Creative	4.16	1.244
Q.10 Creative	4.19	1.286	Q.22 Courageous	4.07	1.216
Q.22 Courageous	4.16	1.259	Q.21 Fit	4.05	1.271
Q.13 Adventurous	4.10	1.319	Q.13 Adventurous	3.90	1.362
Q.21 Fit	4.01	1.347	Q.24 Respected	3.75	1.366
Q.20 Athletic	3.70	1.494	Q.20 Athletic	3.45	1.426

SD: Standard deviation

What factors predict men's mental well-being?

Multiple linear regressions, using the enter method, were applied to the data. In the following models, collinearity statistics were within acceptable limits. ^[22] In the UK data, the maximum VIF was 3.351 and the minimum tolerance level was 0.298; in the German data, the maximum VIF was 3.169 and the minimum tolerance level was 0.316.

Tables 3a and b show the variables that were the strongest predictors of PMI scores.

Table 3a shows the top five significant predictors of PMI in the UK, in descending order of statistical significance. Variables not shown in Table 3a include Job Satisfaction, which was ranked the 7th strongest predictor ($\beta = 0.057$; t = 1.964, P < 0.05).

Table 3b shows the top five significant predictors of PMI in the German sample, in descending order of statistical significance. Table 3a and b show that the five main predictors of higher PMI were fairly similar in the UK and Germany. In the UK they predictors were greater Personal Growth Satisfaction, older Age, greater Health Satisfaction, greater Education Satisfaction, and having a less Negative View of Masculinity. In Germany, the main predictors of higher PMI were greater Personal Growth Satisfaction, older Age, having a less Negative view of Masculinity, greater Health Satisfaction, and having a Positive view of Masculinity. The only differences were that in the top five predictors in the UK, Education Satisfaction was significant in the UK and having a less Negative view of Masculinity was significant in the German sample.

The following section explores more deeply the main predictors of PMI.

Factors related to personal growth satisfaction

Personal Growth Satisfaction was the strongest predictor of PMI in the UK (β = 0.211; t= 6.146; P< 0.0000005). Table 4a shows the three significant predictors of PMI in the UK, based on the Personal Growth domain items.

In Germany, Personal Growth Satisfaction was the strongest predictor of PMI (β = 0.160; t= 5.023; P< 0.000001). Table 4b shows the four significant predictors of PMI in the German sample, based on the Personal Growth domain items.

These results indicate that the more satisfied participants were with their Personal Growth, the higher their PMI. Table 4a and b show that in the UK and Germany, the two personal growth items that significantly predicted PMI were Mental well-being and Being the Real Me. In the UK, in addition, Overcoming Fears was a significant predictor of PMI. In Germany, two other personal growth items significantly predicted PMI: placing less importance on Spiritual Development, and being less inclined to Put Myself First.

Table 2b: Core values, in order of most aspired to, including in two previous samples. The most common top three and most common bottom three values only are shown

Core value	UK (2	017)	US (20)18)	UK (2	021)	GDR (2	2022)
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Honest	5.3	1.0	5.40	1.0	5.0	1.2	5.2	1.2
Reliable	5.3	1.0	5.29	1.0	4.8	1.3	5.0	1.6
Dependable	5.3	1.0	5.24	1.0	4.8	1.5	4.8	1.6
Adventurous	3.9	1.6	4.25	1.3	4.1	1.3	3.9	1.4
Fit	4.1	1.1	4.39	1.2	4.0	1.4	4.1	1.3
Athletic	3.7	1.3	3.89	1.4	3.7	1.5	3.5	1.4

SD: Standard deviation

Table 3a: Top five factors that predict men's mental wellbeing (Positive Mindset Index) in the UK

Variable	β	t	Sig
Personal growth satisfaction	0.211	6.146	0.000000001
Age	0.150	4.725	0.0000005
Health satisfaction	0.124	3.785	0.0005
Education satisfaction	0.105	3.578	0.0005
Negative view of masculinity	-0.101	-3.458	0.001

Table 3b: Top five factors that predict men's mental wellbeing (Positive Mindset Index) in Germany

Variable	β	t	Sig
Personal growth satisfaction	0.160	5.023	0.000001
Age	0.125	4.075	0.00005
Negative view of masculinity	-0.118	-4.014	0.0001
Health satisfaction	0.118	3.897	0.0001
Positive view of masculinity	0.097	3.647	0.0005

Table 4a: The significant predictors of PMI in the UK sample, based on the Personal Growth domain items, in the UK sample

Variable	β	t	Sig
Mental wellbeing	0.122	4.315	0.000
Being the "real me"	0.120	4.017	0.000
Overcoming fears	0.068	2.210	0.027

Table 4b: The significant predictors of PMI in the German sample, based on the personal growth domain items

Variable	β	t	Sig
Mental wellbeing	0.276	10.081	0.03^{-21}
Being the "real me"	0.074	2.629	0.009
Spiritual development	-0.062	-2.102	0.036
Put myself first	-0.057	-2.006	0.045

Age

In the UK sample, age was the second strongest predictor of PMI ($\beta = 0.150$; t = 4.725; P < 0.00001). Similarly, in the German sample, age was the second strongest predictor of PMI

(β = 0.125; t = 4.075; P < 0.00005). These findings indicate that older men have higher PMI.

Health

In the UK sample, Health Satisfaction was the third strongest predictor of PMI (β = 0.124; t = 3.785; P < 0.0001). Those who were more satisfied with their health had a higher PMI. Table 5a shows the two significant predictors of PMI, based on the Health domain items.

In the German sample, Health Satisfaction was the fourth strongest predictor of PMI (β = 0.118; t= 3.897; P< 0.0001). Those who were more satisfied with their health had a higher PMI. Table 5b shows the five significant predictors of PMI, based on the Health domain items. Higher PMI was linked to placing importance on: Feeling good (β = 0.141; t= 4.656; P< 0.000003), Exercise (β = 0.81; t= 2.888; P< 0.004), Living Longer (β = 0.071; t= 2.700; P< 0.007), and Mental Health (β = 0.065; t= 2.138; P< 0.033). Lower PMI was significantly related to placing importance on Looking good (β = -0.067; t= 2.702; P< 0.007).

Education

In the UK sample, Education Satisfaction was the fourth strongest predictor of PMI (β =0.105; t=3.578; P<0.0005). Those who were more satisfied with their education had a higher PMI. Table 6 shows three significant predictors of PMI, based on the Education domain items.

Impact of masculinity on behaviour

Positive view of masculinity

Having a Positive View of Masculinity was the fifth strongest predictor of PMI in the German sample (β =0.101; t=-3.458; P<0.001). Table 7 shows that taking each of the three items in the Positive View of Masculinity subscale, two of them were significant predictors of PMI: thinking that *Masculinity makes me protective of women* was associated with significantly higher PMI (β =0.141; t=5.532, P<0.0000005), as was thinking *Masculinity makes me strong for my family* (β =0.055; t=2.092, P<0.037).

Negative view of masculinity

In the UK sample, not having a Negative View of Masculinity was the fifth strongest predictor of higher PMI ($\beta = -0.101$; t = -3.458; P < 0.001). Taking each of the four items in the Negative View of Masculinity subscale, only one of them was a significant predictor of PMI by itself: thinking that Masculinity prevents me from talking about how I feel about my problems was associated with significantly lower PMI ($\beta = -0.065$; t = -2.287, P < 0.022).

Masculinity and attitudes to women

'It can be seen from the darker top line in both countries that men across all age groups on average moderately agreed that

Table 5a: The significant predictors of PMI in the UK sample, based on the health domain items

Variable	β	t	Sig
Living longer	0.168	5.912	0.000005
Physical health	0.091	2.840	0.005

Table 5b: The significant predictors of PMI in the UK sample, based on the health domain items

Variable	β	t	Sig
Feeling good	0.141	4.656	0.000003
Exercise	0.081	2.888	0.004
Living longer	0.071	2.700	0.007
Looking good	-0.067	-2.702	0.007
Mental health	0.065	2.138	0.033

Table 6: The significant predictors of PMI in the UK sample, based on the education domain items

Variable	β	t	Sig
Increased knowledge	0.146	4.626	0.000004
Leads to good pay	0.071	2.402	0.016
Personal growth	0.073	2.250	0.025

Table 7: The significant predictors of PMI in the UK sample, based on having a positive view of masculinity

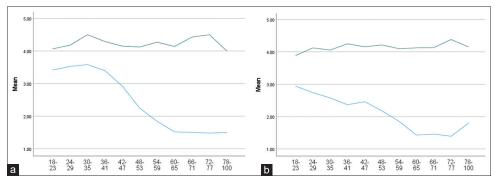
Variable	β	t	Sig
Masculinity helps protect women	0.141	5.532	0.0000005
Masculinity makes me strong for my fam	ily 0.055	2.092	0.037

Table 8: The significant predictors of PMI in Germany, based on having a negative view of masculinity

Variable	β	t	Sig
Masculinity causes suppression of feelings	-0.093	-3.311	0.001
Masculinity causes violence against women	-0.105	-3.157	0.002
Masculinity reduces covid-19 precautions	-0.066	-1.961	0.050

masculinity makes them feel protective of women. The lighter lower lines in both countries shows that older men disagreed more than younger men that masculinity makes them feel violent towards women. Men aged over 60 were on average in almost complete disagreement with this proposition (1 on the vertical axis indicates 'Very much disagree').

In the German sample, not having a Negative View of Masculinity was the third strongest predictor of higher PMI ($\beta = -0.118$; t = -4.014; P < 0.0001). Taking each of the four items in the Negative View of Masculinity subscale, Table 8 shows that three of them were significant predictors of PMI: thinking that Masculinity prevents me from talking about how I feel about my problems was associated with significantly lower PMI ($\beta = -0.093$; t = -3.311, P < 0.001), as were thinking masculinity caused feelings of violence against



Figures 1: Line graphs showing agreement in the UK sample (a) and German sample (b) about the impact of masculinity on behavior toward women. Higher scores on the vertical axis indicate more agreement. 3=moderately disagree, and 4=moderately agree. Participant age groups are shown on the horizontal axis. Note: In Figures 1a and b, the darker line shows responses to the statement "Masculinity makes me inclined to be protective towards women." The light blue line shows responses to the statement "Masculinity makes me inclined to be violent towards women."

women ($\beta = -0.105$; t = -3.157, P < 0.002), and taking risks regarding COVID-19 precautions ($\beta = -0.066$; t = -1.961, P < 0.05).

Masculinity and attitudes to women

Figure 1a illustrates the pattern of age differences in the UK sample in relation to views about the impact of masculinity on attitudes to women. Figure 1b shows the same for the German sample.

Discussion

These two surveys, of 2023 men in the UK in Dec 2021, and 2002 men in Germany in January 2022, show that men value moral characteristics (e.g. being honest) over physical characteristics (e.g. being athletic), and the best predictor of their well-being is satisfaction with their personal growth. Based on the findings presented in the results section, Hypotheses 2 and 3 were accepted (that mental well-being would be predicted by age and views on masculinity), and Hypothesis 1 received only partial support, in that some aspects of life satisfaction were accepted (health, education) and others rejected (job satisfaction).

Core values

The finding that men in both countries typically value honesty and reliability more than fitness and being athletic replicates the two previous Harry's reports. Table 2b shows that although the UK 2021 ratings are a little lower than in the other three surveys, the differences between countries, and between the UK 2017 and UK 2021 scores, are not very large, and one might speculate that the changes are the result of chance fluctuations that are not of real significance.

Main predictors of mental positivity (PMI)

The findings in these two surveys regarding age and health are similar to those of the UK 2017 and US 2018 surveys, but the other three findings are from variables that were added

to the present version of the survey, i.e., Personal Growth Satisfaction and the two masculinity variables. The absence of Job Satisfaction is notable given its prominence previously, and is discussed below.

Personal growth satisfaction

In Tables 4a and b, the fact that mental well-being (PMI) was highly correlated with mental positivity might not seem surprising, but it in fact suggests an important point: people's satisfaction with their mental health is strongly aligned with how positive their mindset is. It is interesting to note the fact that "Put Myself First" was not a significant predictor, which might indicate that prioritizing oneself over others does not necessarily help mental well-being, which is in contrast with the idea of "putting one's own personal happiness before the personal happiness of others," which has been proposed as an important part of happiness.^[29,30]

In the UK sample, the significant relationship between PMI and the items "Being the real me" and "Overcoming fears" suggest that good mental health is not necessarily without introspection, authenticity, and effort.

In the German sample, one might speculate that the negative relationship between Spiritual Development and PMI could indicate that people who have low well-being seek out methods of spiritual development to help boost their well-being. It is interesting to note that being less inclined to "Put Myself First" was a significant predictor of PMI, albeit a marginal one (P < 0.05). This finding goes against the advice to "put one's own personal happiness before the personal happiness of others," [29,30] though it is in line with the idea that being selfless leads to happiness. [31]

Age

In both the UK and Germany, being older was a significant predictor of mental positivity. Although older age is often seen as being associated with poorer health and therefore lower quality of life, these surveys-like the two previous Harry's reports-found that older age was associated with higher PMI. This is in line with other research from the past two decades which has found-in contrast to findings in the 1940s and 50s-that older people report being happier than younger people. There are various explanations for this, for example, happiness may increase with age because of improved regulation of emotion and orientating one's life toward maximizing happiness. PMI and age might also reflect better healthcare, greater maturity, and a moving away from the growing pains of the teens and early 20s, a phase of life that has been characterized as "young male syndrome," in which delinquency is not uncommon.

Health satisfaction

Table 3a and b show that Health Satisfaction was the third strongest predictor of a positive mindset in the UK, and the fourth in Germany, in other words, those who were more satisfied with their health had a higher PMI. Table 5a shows that in the UK - and perhaps related to the findings regarding age - the Health domain item most strongly predictive of PMI was Placing Importance on Living Longer. The other Health domain item that significantly predicted PMI was Placing Importance on Physical Health. Interestingly, placing importance on mental health was not significantly related to PMI in the UK.

Table 5b shows that in Germany, higher PMI was linked to placing importance on: Feeling good, Exercising, Living Longer, Looking Good, and Mental Health. Interestingly, lower PMI was significantly related to placing importance on Looking good, which might indicate that people who have a less positive mindset place undue importance on their physical appearance.

It is interesting that in the UK 2021 sample and the US 2018 sample "looking good" was associated with higher PMI, though it was not significant in the UK 2017 sample or the Germany 2022 sample. These differences might be signs of slight changes in the UK culture over time, or slight differences between German and US (and to some degree UK) culture on this point.

Do men in the UK still value mental health more than physical health?

Comparing mean scores for the importance of mental health and the importance of physical health in the UK in 2017 and 2021, the short answer to this question is yes, but only just. More interestingly, we find that there is less interest in both physical and mental health in the present cohort. In 2021, 39% of men thought their mental well-being was very important, and 30% thought their physical well-being was very important. This is lower than the 2017 UK cohort, where 43% of men thought their mental well-being was very important, and 40% thought their physical well-being was very important. This

finding of less concern over physical and mental health during the Covid-19 phenomenon is puzzling; despite almost 2 years of global health concerns about Covid-19, the associated lockdowns and other restrictions, and the associated stressors (e.g. job insecurity, global recession, social isolation, etc.), there was less importance placed on both physical and mental health in the present cohort compared to the UK 2017 cohort. Perhaps this change represents a sense of normalization of health concerns, in that health scares have become so ubiquitous they have lost some of their importance.

The impact of masculinity on behaviour

Negative view of masculinity

Table 3a and b show that not having a Negative View of Masculinity was the fifth strongest predictor of higher PMI in the UK and the third strongest in Germany. These findings suggest that men are less happy if they view masculinity as something that has a negative impact on their behavior.

In the UK, of the four items in this subscale individually, the strongest predictor of PMI was *Masculinity prevents me from talking about how I feel about my problems*. In other words, the more that men thought repressing their feelings was the fault of masculinity, the lower their mental well-being.

Positive view of masculinity

Table 3b shows that in the German sample, the fifth strongest predictor of PMI was thinking masculinity has a positive impact on behavior, which was related to a more positive mindset. This is in line with the above findings regarding negative views of masculinity.

In the UK sample, the Positive View of Masculinity subscale was not significantly related to PMI, although the "family" item by itself was significantly related (data not shown here). Note that the "Masculinity Irrelevant" variable was not associated with PMI in either the UK ($\beta = 0.010$; t = 0.393, P < 0.694) or Germany ($\beta = -0.038$; t = -0.156, P < 0.118).

Masculinity and age

Figure 1a and b show that the view of masculinity tends to be more positive in the older men in this study. The scores on the vertical axes of Figure 1a and b show that overall, men tend to moderately disagree that masculinity has a negative impact on their behaviour. These figures show that men across all age groups on average moderately agreed that masculinity makes them feel protective of women. The disagreement that masculinity makes men feel violent towards women was much stronger in the older men than the younger men. In other words, although on average older men feel that masculinity does not impact their behavior negatively, younger men do. We could speculate that the younger men, but not so much the older men, have from the 1990s onwards been exposed to a high enough volume of negative views of masculinity,

perhaps at sensitive periods of their young lives, to have internalized them. This survey might be seen as a litmus test of the impact of the negative narrative around masculinity from the media, and the cognitive dissonance this creates when it is met by a man's sense that his core identity of masculinity is actually something that is mostly perfectly benign. However, as American psychiatrist Mark McDonald put it: "healthy expressions of masculinity [...] have all been redefined as universally unhealthy." [34]

It is interesting to note that the difference between older and younger men is less stark in the German sample [Figure 1b] compared to the UK 2021 sample [Figure 1a]. There was a steeper contrast in views in the men in the UK sample between the ages of around 35 and 60 years old. This difference might reflect cultural differences in the timing of exposure to different messages about masculinity from the media and other sources, with German men having had a more steady erosion of the sense of masculinity over the years. Further research would be needed to address this question.

General discussion on masculinity findings

It is interesting that the findings were fairly similar in both countries, which might be related to the fact that both cultures are rated identically (66 out of 100) on being masculine (i.e. the degree to which heroism, achievement, assertiveness, and material rewards are appreciated in a society."^[35]

The impact of negative narratives about masculinity is of concern to many people, especially the potential impact on boys. [1] It has been suggested that "Distorted narratives that put men perpetually in the role of toxic abuser, risk alienating men from themselves and others, leading to what might be called a state of *gender alienation*." [10] The mental health of people who are made to feel ashamed of a core part of themselves, such as their gender, might be harmed. [36]

It might seem obvious that if a man has a negative view of masculinity he will consequently experience less well-being, but the findings of the present study contradict the trend in the social sciences to see masculinity as something negative. This negative view in academia is partly explained by the fact that much of masculinity research these days is based on samples of college-aged men, who may not have grown out of "young men syndrome," but the problem is that findings from these young men are unjustifiably generalized to all men.^[14] The trend to a negative view of masculinity has been adopted by psychological organizations like the American Psychological Association^[3] in the US, Australia's Australian Psychological Society,^[37] and in the UK, in a highly publicized document called the Power Threat Meaning Framework.^[38]

The findings of the present study indicate that more research is needed to elucidate which factors are most strongly causing men to take a negative view of their masculinity. This should ideally involve the beginning of large-scale discussion among clinicians, academics, politicians, the media and the public on whether taking a negative view of masculinity is really what we want for our sons, fathers, brothers and ourselves.

Job satisfaction in 2021 compared to 2017

Unlike the first two Harry's reports, job satisfaction was not a significant predictor in the UK 2021 and German 2022 samples. This difference is most likely due to including new variables in the present study (the 16 masculinity items and eight new items on satisfaction with various domains of life), as well as possibly related to the fact that this survey was run in the UK during a covid-19 lockdown period when working conditions had changed dramatically for many people, for example, working from home instead of an office. Similarly, in Germany, the survey was run only 2-7 months (depending on the region in Germany) after covid-19 lockdowns. Apart from lockdowns, there is also the interesting possibility that attitudes to work are changing; although there is not much research on this point, it has been suggested that the past few years have seen a radical shift in the attitude of employees to their working conditions and work-life balance.[39]

Interpretation of PMI findings for clinical purposes

The PMI is a good way to measure men's mental well-being. Men are less inclined to fill in questionnaires than women are (though this depends on the topic), [40] but the PMI is very brief so the length is less off-putting. Furthermore, the PMI correlates negatively with measures of mental disturbance, so it does not need to ask potentially awkward questions about feelings of depression or suicidality. [20]

The mean (\pm SD) PMI in the present sample was 3.6 ± 0.8 , which is very slightly lower than the 2018 US sample (3.7 ± 0.8), but higher than the UK 2021 sample (3.3 ± 0.9) and the 2017 UK sample (3.4 ± 0.7). Rates of depression in men have been found to be slightly lower in Germany than in the US or UK, and it is normal for there to be slight variations when measurements are taken at different time points or with different measures.^[41]

It is widely accepted that having meaning in one's life is crucial to mental health, as noted in Viktor Frankl's famous book "Man's Search for Meaning." [42] The present study highlights some of the factors that are an important source of meaning for men. Accordingly, therapists who are treating low-mood in male clients should find out how much the variables listed in Table 3a and b are contributing to their mood, and whether there is any scope for improving any of these as a way of improving their mood. This might be a sensible adjunct to conventional approaches to therapy, especially as such approaches might work less well for improving the long-term mental health of men compared to women. [43]

Single items versus multi-item scales

An interesting aspect of the new survey was the inclusion of several single-item measures (e.g. "satisfaction with interactions with family") that corresponded with the multi-item domains (e.g., the 11 items regarding the importance of various aspects of family interactions). The received wisdom is that multi-item scales are preferable to single items because they are able to tap into various aspects of a complex phenomenon, though on the other hand, some studies have found that single items can work better than composite subscales. [44] In recent years the weight of evidence is tilting towards the idea that single items are perfectly valid for simple constructs measured with large sample sizes. [45] Single items also mean that you don't need to test internal reliability (e.g., Cronbach's alpha), though you can still do other tests of reliability (e.g., test-retest).

In the present study, when the analysis was run with the single items and their multi-item equivalents, the single items were stronger predictors in every case (e.g., the single Health Satisfaction item was a stronger predictor than the multi-item health domain), and the findings overall were unchanged by using single versus multi- items, with few exceptions.

Limitations of this study

Although the findings of this study are valid in their own right, the inclusion of 23 new items (8 satisfaction, and 15 masculinity) makes it difficult to compare the findings of the present study to those of the previous Harry's reports. However, this is the inevitable price of developing a questionnaire, and it could be argued that finding answers to new questions is worth the cost of not being able to make comparisons across successive surveys.

Unlike previous Harry's studies, the current study did not allow space for "free text" responses (i.e., answers expressed in the respondent's own words). Although this made the survey quicker for participants to complete, the deeper meaning behind their answers to Likert-scaled questions could not be assessed.

The coding of "relationship status" did not offer an option for "going steady but not cohabiting," so it is unknown how many of the men were just dating. Some of these may have selected the "domestic relationship" option, but it is unknown how many. This makes it difficult to compare findings on the "relationship status" variable to findings from previous Harry's reports.

Eight new items were added to the "values" section of the UK 2021 and Germany 2022 surveys asking about overall satisfaction regarding each set of values. The satisfaction items were either phrased in a way that allowed everyone to answer, or had an option to indicate non-applicability. However, due to an oversight, the item about relationship satisfaction was phrased in a way that prevented men who were not in a relationship to skip the question. For this reason, the romance satisfaction item needed to be excluded from the analysis.

Future studies should of course include options for "n/a" responses where necessary.

Another limitation of this study - and all cross-sectional surveys analyzed using regression methods - is that statistical correlations between variables do not prove a causal relationship. For example, does the Negative View of Masculinity cause the PMI scores to reduce, or does lower PMI cause the man to have a more Negative View of Masculinity? Or, it could be that a third variable, for example, psychological trauma, causes both a lower PMI and a negative distortion in the view of masculinity. This grey area around causality applies in particular to the finding about age and PMI because we did not follow men through their lifetimes. This means we cannot say that, for example, the link between age and PMI is not just specific to a generational cohort rather than the general process of aging on the individual. For example, men born between 1946 and 1964 ("baby-boomers") might have throughout their youth always been happier than men born between around 1980 and 1996 ("Millennials"). This issue could be addressed, but only with an ambitious longitudinal study following men throughout their lifespan.

Strengths of this study

The large sample size of this study gives it an advantage in terms of statistical power, in that it is likely to have been large enough to detect relevant correlations and group differences, except where groups happened to be small, for example, smaller demographic groups.

The present study is strong in terms of originality. The 15 new items directly addressing men's views of masculinity, from which the two subscales were derived, is innovative, given that most other masculinity questionnaires do not ask men how they think masculinity impacts their behaviour, but instead ask participants about their behavior or feelings, for example, the Conformity to Masculine Norms Inventory, or ask participants about men in general, for example, the Brannon Masculinity Scale. The novel approach of the present survey gives us a fresh sense of what men think about their masculinity, and has yielded some important insights, especially in regard to the link between having a negative view of how masculinity impacts behavior and lower PMI.

Conclusion

These two surveys confirm many of the findings of the previous two Harry's surveys: men's mental well-being is related to age and an interest in their health, and they value honesty and reliability above all other core values. The present study adds the significant new knowledge that how men view their masculinity is significantly related to their mental well-being too. One implication is that if we want men to have good mental health, a useful strategy might be to help them to appreciate the ways in which their masculinity can have a positive impact on their

behavior and the people around them. Taking a positive view of masculinity goes against the trend these days, where even global corporations have adopted the fashion of taking the view that masculinity is something to be frightened of. For example, Unilever - through Promundo and Axe - has been promoting the "Man Box" concept which casts masculinity in a poor light. However the think-tank *Policy Exchange* has noted that businesses such as Unilever have drawn criticism for putting too much emphasis on their "social purpose." A clear example of this was the wave of public criticism levelled at Gillette, who lost \$8 billion because of their "We Believe" campaign in 2019, which showed a marked deviation from their previous male-friendly campaigns such as "The best a man can get."

Although men in general tend not to think much about their masculinity and do not much want to discuss it with others, it has become the subject of such hype and hysteria that it is hard to ignore. However, there is growing evidence that the negative narrative about masculinity has a harmful impact on men, so the positive message from research, such as the present study, highlights the need to create a more realistic and healthy narrative about men and masculinity.

Authors' Declaration Statements

Ethics approval and consent to participate

Ethical approval for the study was granted by an independent expert after review, as per Section 12 of the British Psychological Society (BPS) code of ethics. Informed consent was given prior to filling in the survey.

Consent for publication

Participants gave consent for publication prior to filling in the survey.

Availability of data and material

The participants of this study did not give written consent for their data to be shared, so supporting data is not available.

Competing Interests

None to declare.

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Authors' contributions

John Barry is the sole author and was instrumental in all stages of this research project.

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Supplementary Tables

Supplementary Table S1: Pearson's correlations for the nine value domains in the UK sample

Variable	n	M	SD	1	2	3	4	5	6	7	8	9
Work	2023	4.37	1.02	-								
Friendships	2023	4.68	0.88	0.642**	-							
Romance	2023	4.66	0.90	0.608**	0.743**	-						
Family	2023	4.59	0.91	0.642**	0.703**	0.728**	-					
Personal growth	2023	4.47	0.88	0.652**	0.653**	0.610**	0.695**	-				
Sport and leisure	2023	4.32	1.00	0.622**	0.537**	0.550**	0.608**	0.675**	-			
Health	2023	4.63	0.89	0.631**	0.631**	0.610**	0.653**	0.709**	0.710**	-		
Community	2023	4.46	0.95	0.602**	0.608**	0.580**	0.639**	0.637**	0.610**	0.671**	-	
Education	2023	4.61	0.98	0.637**	0.620**	0.608**	0.600**	0.628**	0.607**	0.707**	0.669**	-

^{*}P < 0.05. **P < 0.01. Two tailed

Supplementary Table S2: Pearson's correlations for the nine value domains in the German sample

Variable	n	M	SD	1	2	3	4	5	6	7	8	9
Work	2002	4.45	0.80	-								
Friendships	2002	4.67	0.80	0.630**	-							
Romance	2002	4.73	0.76	0.639**	0.707**	-						
Family	2002	4.47	0.83	0.550**	0.571**	0.696**	-					
Personal growth	2002	4.35	0.84	0.529**	0.509**	0.600**	0.637**	-				
Sport and leisure	2002	4.44	0.86	0.567**	0.472**	0.568**	0.567**	0.616**	-			
Health	2002	4.80	0.75	0.549**	0.576**	0.639**	0.578**	0.624**	0.633**	-		
Community	2002	4.43	0.88	0.506**	0.535**	0.550**	0.550**	0.534**	0.548**	0.614**	-	
Education	2002	4.73	0.80	0.579**	0.540**	0.586**	0.534**	0.570**	0.584**	0.698**	0.569**	-

^{*}P < 0.05. **P < 0.01. Two tailed

Supplementary Table S3: Results from a principal component analysis of the impact of masculinity on behavior scales

Factors and items	Cor	mponent load	Cronbach's Alpha	
	1	2	3	
Factor 1. Negative View of Masculinity				
5. Masculinity makes me inclined to be violent towards women	0.904	-0.097	-0.020	0.895
Masculinity prevents me from recycling and other environmentally friendly behaviours: Please rate how much you agree that the following statements	0.895	-0.029	-0.043	
2. Masculinity prevents me from taking safety precautions related to Covid-19	0.891	-0.034	-0.040	
7. Masculinity prevents me from talking about how I feel about my problems	0.718	0.079	0.079	
Factor 2. Positive View of Masculinity				
9. Masculinity makes me want to be strong for my family	-0.067	0.830	-0.017	0.682
6. Masculinity makes me inclined to be protective towards women	-0.190	0.790	0.116	
3. The idea of 'traditional masculinity' may have a helpful impact on boys if they hear or read about the term	0.253	0.617	-0.087	
Factor 3. Masculinity is Irrelevant				
14. Masculinity has got nothing to do with how I go about my daily life	-0.209	0.088	0.773	0.474
 Traditional masculinity (being strong, in control of my emotions, and earning a good amount of money) is outdated in today's society 	0.203	-0.108	0.754	

n=4025. The extraction method was principal components analysis. Rotation Method: Oblimin with Kaiser Normalization.