

Men's Use of Cosmetic Surgery and the Role of Traditional Masculinity Ideologies

Supplementary Materials

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Table S1*Association Between Endorsement of TMI and Cosmetic Surgery*

Predictor	Model 1			Model 2		
	OR	95% CI	<i>p</i> (adj.)	OR	95% CI	<i>p</i> (adj.)
Intercept	0.21	[0.14, 0.31]	<.001^{***}	0.15	[0.09, 0.27]	<.001^{***}
MRNI-SF¹	1.60	[1.13, 2.27]	.008^{**}	1.64	[1.12, 2.38]	.041[*]
Covariates						
Age ¹				1.62	[1.05, 2.49]	.058
Tertiary education				1.56	[0.72, 3.39]	.261
Income ¹ (CHF)				1.56	[1.1, 2.21]	.041[*]
Fit and performance						
χ^2 (df)		6.94 (1)			11.04 (3)	
ΔR^2 (in %)		5.8^{**}			8.8[*]	
AIC (BIC)		178.6 (185.1)			173.6 (189.8)	

Note. *p*-values were adjusted for multiple testing using the Holm-method while 95% Wald confidence intervals (95% CI) are unadjusted. OR = odds ratio; CI = Wald confidence interval; ΔR^2 = difference in Nagelkerke's pseudo- R^2 ; MRNI-SF = Male Role Norms Inventory – Short Form.

¹ variable was z-standardized.

* *p* < .05; ** *p* < .01; *** *p* < .001

Table S2*Association Between Endorsement of TMI and Head-Hair Transplant Surgery*

Predictor	Model 1			Model 2		
	OR	95% CI	<i>p</i> (adj.)	OR	95% CI	<i>p</i> (adj.)
Intercept	0.04	[0.02, 0.09]	<.001^{***}	0.02	[0.01, 0.07]	<.001^{***}
MRNI-SF¹	2.40	[1.39, 4.16]	.002^{**}	2.76	[1.52, 5.04]	.004^{**}
Covariates						
Age ¹				0.96	[0.46, 1.98]	.905
Tertiary education				3.21	[0.81, 12.62]	.192
Income ¹ (CHF)				1.63	[0.97, 2.73]	.192
Fit and performance						
χ^2 (df)		9.87 (1)			5.56 (3)	
ΔR^2 (in %)		14.2^{**}			7.8	
AIC (BIC)		78.2 (84.7)			78.5 (94.7)	

Note. *p*-values were adjusted for multiple testing using the Holm-method while 95% Wald confidence intervals (95% CI) are unadjusted. OR = odds ratio; CI = Wald confidence interval; ΔR^2 = difference in Nagelkerke's pseudo- R^2 ; MRNI-SF = Male Role Norms Inventory – Short Form.

¹ variable was z-standardized.

* *p* < .05; ** *p* < .01; *** *p* < .001

Table S3*Sensitivity Analysis for Association Between Conformity to TMI and Cosmetic Surgery*

Predictor	Sensitivity Model		
	OR	95% CI	<i>p</i> (adj.)
Intercept	0.03	[0.01, 0.10]	<.001***
CMNI-30¹	3.38	[2.00, 5.70]	<.001***
Covariates			
Age ¹	1.63	[0.96, 2.76]	.139
Tertiary education	1.43	[0.61, 3.33]	.413
Income ¹ (CHF)	1.56	[1.05, 2.32]	.084
Non-Heterosexual	7.98	[2.48, 25.72]	.002**

Note. *p*-values were adjusted for multiple testing using the Holm-method while 95% Wald confidence intervals (95% CI) are unadjusted. OR = odds ratio; CI = Wald confidence interval; CMNI-30 = Conformity to Masculine Norms Inventory – 30

¹ variable was z-standardized.

* *p* < .05; ** *p* < .01; *** *p* < .001

Table S4*Sensitivity Analysis for Association Between Conformity to TMI and Head-Hair Transplant Surgery*

Predictor	Sensitivity Model		
	OR	95% CI	<i>p</i> (adj.)
Intercept	0.00	[0.01, 0.04]	<.001***
CMNI-30¹	5.55	[2.35, 13.14]	<.001***
Covariates			
Age ¹	1.19	[0.49, 2.88]	.696
Tertiary education	2.79	[0.64, 12.26]	.520
Income ¹ (CHF)	1.45	[0.72, 2.91]	.596
Non-Heterosexual	5.73	[0.85, 38.72]	.294

Note. *p*-values were adjusted for multiple testing using the Holm-method while 95% Wald confidence intervals (95% CI) are unadjusted. OR = odds ratio; CI = Wald confidence interval; CMNI-30 = Conformity to Masculine Norms Inventory – 30

¹ variable was z-standardized.

* *p* < .05; ** *p* < .01; *** *p* < .001

Table S5*Sensitivity Analysis for Association Between Endorsement of TMI and Cosmetic Surgery*

Predictor	Sensitivity Model		
	OR	95% CI	<i>p</i> (adj.)
Intercept	0.04	[0.02, 0.12]	<.001^{***}
MRNI-SF¹	2.42	[1.53, 3.85]	<.001^{***}
Covariates			
Age ¹	1.15	[0.69, 1.90]	.590
Tertiary education	1.60	[0.71, 3.61]	.515
Income ¹ (CHF)	1.73	[1.19, 2.51]	.012[*]
Non-Heterosexual	6.99	[2.32, 21.04]	.002^{**}

Note. *p*-values were adjusted for multiple testing using the Holm-method while 95% Wald confidence intervals (95% CI) are unadjusted. OR = odds ratio; CI = Wald confidence interval; MRNI-SF = Male Role Norms Inventory – Short Form.

¹ variable was z-standardized.

* *p* < .05; ** *p* < .01; *** *p* < .001

Table S6*Sensitivity Analysis for Association Between Endorsement of TMI and Cosmetic Surgery*

Predictor	Sensitivity Model		
	OR	95% CI	<i>p</i> (adj.)
Intercept	0.01	[0.00, 0.05]	<.001^{***}
MRNI-SF¹	3.72	[1.79, 7.75]	.002^{**}
Covariates			
Age ¹	0.70	[0.29, 1.68]	.425
Tertiary education	3.22	[0.8, 12.93]	.285
Income ¹ (CHF)	1.76	[1.01, 3.07]	.181
Non-Heterosexual	4.38	[0.77, 24.8]	.285

Note. *p*-values were adjusted for multiple testing using the Holm-method while 95% Wald confidence intervals (95% CI) are unadjusted. OR = odds ratio; CI = Wald confidence interval; MRNI-SF = Male Role Norms Inventory – Short Form.

¹ variable was z-standardized.

* *p* < .05; ** *p* < .01; *** *p* < .001

Appendix 1: Additional health measures described in more detail for replication purposes

General physical health (Short Form 36 – first item)

In general, would you say your health is:

1 = Excellent, 2 = Very Good, 3 = Good, 4 = Fair, 5 = Poor

Brazier, E., Harper, R., Jones, N. M., O’Cathain, A., Thomas, K. J., Usherwood, T., et al. (1992). Validating the SF-36 health survey questionnaire: New outcome for primary care. *Br. Med. J. Gen. Pract.* 305, 160–164.

Experiencing psychological distress – (self-generated and validated)

Are you currently experiencing psychological distress?

1 = Yes, experiencing psychological distress

2 = No, not experiencing psychological distress

Eggenberger, L., Fordschmid, C., Ludwig, C., Weber, S., Grub, J., Komlenac, N., & Walther, A. (2021). Men’s psychotherapy use, male role norms, and male-typical depression symptoms: examining 716 men and women experiencing psychological distress. *Behavioral Sciences*, 11(6), 83.

Eggenberger, L., Komlenac, N., Ehlert, U., Grub, J., & Walther, A. (2022). Association between psychotherapy use, sexual orientation, and traditional masculinity among psychologically distressed men. *Psychology of Men & Masculinities*, 23(4), 384.

Diagnosis of mental disorder – (self-generated)

Have you ever been diagnosed with a mental disorder by a psychologist or psychiatrist?

1 = Yes

2 = No

Psychotherapy use – (self-generated and validated)

Are you currently in psychotherapy treatment?

(Note: Psychotherapy is the targeted professional treatment of mental disorders or psychologically induced physical disorders by a licensed psychotherapist or psychiatrist. Counseling for problems that have no disease value in the sense of a mental disorder are not considered psychotherapy)

1 = Yes

2 = No

Schneeberger, M., Ehlert, U., Eggenberger, L., Seidler, Z. E., Wilson, M. J., Fisher, K., & Walther, A. (2024). Men’s psychotherapy dropout is associated with conformity to traditional masculinity ideologies. *Journal of Psychotherapy Integration*. Advance online publication.

<https://doi.org/10.1037/int0000342>

Use of any form of psychopharmacological medication – (self-generated)

Have you taken psychopharmacological medication in the last year or are you currently taking psychopharmacological medication?

1 = Yes

2 = No

Appendix 2: Self-assessment of the criteria for Body Dysmorphic Disorder (BDD) according to the DSM-5 (German version – self generated)

American Psychiatric Association, D. S. M. T. F., & American Psychiatric Association, D. S. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (Vol. 5, No. 5). Washington, DC: American psychiatric association.

Im letzten Monat, waren Sie da sehr beunruhigt, dass mit Ihrer äußeren Erscheinung irgendwas nicht in Ordnung ist oder darüber, wie ein oder mehrere Teile Ihres Körpers aussehen? 1=Ja 2=Nein Externer Variablenname: kd1
Beschäftigen Sie sich übermäßig mit einem oder mehreren Mängeln oder Defekten in Ihrem äußeren Entscheidungsbild? 1=Ja 2=Nein Externer Variablenname: kd2
Filter: Wenn kd2 = ja Sind diese Mängel für andere nicht erkennbar oder werden diese von anderen Personen nur als geringfügig eingestuft? 1=Ja 2=Nein Externer Variablenname: kd3
Filter: Wenn kd2 = ja Haben Sie aufgrund Ihrer Befürchtungen bezüglich Ihres Aussehens eine von den folgenden Verhaltensweisen wiederholt ausgeführt? (Mehrfachauswahl möglich) 1 = häufige Überprüfung des Aussehens im Spiegel 2 = übermäßige Körperpflege 3 = Hautzupfen/-quetschen 4 = Rückversicherungsverhalten bezüglich des Aussehens 5 = Vergleich des Aussehens mit dem von anderen 6 = versuchen die betroffene Körperstelle zu verstecken 7 = sich mit übertrieben viel Aufwand herrichten Externer Variablenname: kd4
Filter: Wenn kd2 = ja Leiden Sie beruflich, sozial oder in anderen Bereichen unter der übermäßigen Beschäftigung mit Ihrem Aussehen? 1=Ja 2=Nein Externer Variablenname: kd5
Filter: Wenn kd2 = ja Liegt der Hauptgrund für die übermäßige Beschäftigung mit Ihrem äußeren Erscheinungsbild in Ihrem Körperfett oder -gewicht? 1=Ja 2=Nein Externer Variablenname: kd6
Filter: Wenn kd2 = ja Wurde bei Ihnen jemals eine Essstörung diagnostiziert? 1=Ja 2=Nein Externer Variablenname: kd7

Appendix 3: Self-assessment of the criteria for Body Dysmorphic Disorder (BDD) according to the DSM-5 (English version – self generated)

American Psychiatric Association, D. S. M. T. F., & American Psychiatric Association, D. S. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (Vol. 5, No. 5). Washington, DC: American psychiatric association.

In the last month, have you been very concerned that something is wrong with your appearance or with the way one or more parts of your body look? 1=Yes 2=No External variable name: kd1
Are you overly concerned with one or more flaws or defects in your external decision image? 1=Yes 2=No External variable name: kd2
Filter: If kd2 = yes Are these defects not recognizable to others or are they only classified as minor by other people? 1=Yes 2=No External variable name: kd3
Filter: If kd2 = yes Have you repeatedly engaged in any of the following behaviors because of your concerns about your appearance? (multiple choice possible) 1 = Frequently checking your appearance in the mirror 2 = excessive grooming 3 = skin plucking/squeezing 4 = Reassurance behavior regarding appearance 5 = Comparison of appearance with that of others 6 = try to hide the affected body part 7 = make up with excessive effort External variable name: kd4
Filter: If kd2 = yes Do you suffer professionally, socially or in other areas from excessive preoccupation with your appearance? 1=Yes 2=No External variable name: kd5
Filter: If kd2 = yes Is the main reason for your excessive preoccupation with your appearance your body fat or weight? 1=Yes 2=No External variable name: kd6
Filter: If kd2 = yes Have you ever been diagnosed with an eating disorder? 1=Yes 2=No External variable name: kd7