

CORRECTION

Open Access



Correction: Marital status and gambling disorder: a longitudinal study based on national registry data

André Syvertsen^{1,2*}, Tony Leino³, Ståle Pallesen^{1,2}, Otto R. F. Smith^{1,3,4}, Børge Sivertsen^{3,5}, Mark D. Griffiths⁶ and Rune Aune Mentzoni^{1,2}

Correction: BMC Psychiatry 23: 199 (2023)
<https://doi.org/10.1186/s12888-023-04697-w>

Following the publication of the original article [1], multiple errors were identified in the sections and Tables 1 and 2. The correct tables are given below and the changes in the abstract, results and discussion sections have been highlighted in **bold typeface**.

The original article can be found online at <https://doi.org/10.1186/s12888-023-04697-w>.

*Correspondence:

André Syvertsen
andre.syvertsen@uib.no

¹ Department of Psychosocial Science, University of Bergen, P.O. Box 7807, 5020 Bergen, Norway

² Norwegian Competence Center for Gambling and Gaming Research, University of Bergen, Bergen, Norway

³ Department of Health Promotion, Norwegian Institute of Public Health, Bergen, Norway

⁴ Department of Teacher Education, NLA University College, Bergen, Norway

⁵ Department of Research & Innovation, Helse Fonna HF, Haugesund, Norway

⁶ International Gaming Research Unit, Psychology Department, Nottingham Trent University, Nottingham, UK



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

The incorrect Table 1 is:

Sample	GD (n = 5,121)	Illness control (n = 27,826)	General control (n = 26,695)	p-value ¹
Women	935 (18.3%)	5,038 (18.1%)	5,193 (19.5%)	< 0.001
Age in 2008				< 0.001
Median (IQR)	29 (22, 39)	29 (22, 39)	30 (22, 39)	
Mean (SD)	30.9 (12)	30.8 (12)	31.3 (12)	
Marital status in 2008				< 0.001
Unmarried	3,674 (71.7%)	17,828 (64.1%)	16,819 (63.0%)	
Married	914 (18.9%)	8,404 (30.2%)	8,345 (31.3%)	
Separated/divorced	510 (10.0%)	1,510 (5.4%)	1,444 (5.4%)	
Widowed	23 (0.4%)	84 (0.3%)	87 (0.3%)	
Marital status changes ³				< 0.001
0	4,024 (78.6%)	22,324 (80.2%)	21,123 (79.1%)	
1	812 (15.9%)	4,730 (17.0%)	4,757 (17.8%)	
2	224 (4.4%)	633 (2.3%)	685 (2.6%)	
3+	61 (1.2%)	139 (0.5%)	130 (0.5%)	

The correct Table 1 is:

Table 1 Participant characteristics at baseline

Sample	GD (n = 5,121)	Illness control (n = 27,826)	General control (n = 26,695)	p-value ¹
Women	935 (18.3%)	5,038 (18.1%)	5,193 (19.5%)	< 0.001
Age in 2008				< 0.001
Median (IQR)	29 (22, 39)	29 (22, 39)	30 (22, 39)	
Mean (SD)	30.9 (12)	30.8 (12)	31.3 (12)	
Marital status at baseline				< 0.001
Unmarried	3,674 (71.7%)	17,828 (64.1%)	16,819 (63.0%)	
Married	914 (18.9%)	8,404 (30.2%)	8,345 (31.3%)	
Separated/divorced	510 (10.0%)	1,510 (5.4%)	1,444 (5.4%)	
Widowed	23 (0.4%)	84 (0.3%)	87 (0.3%)	
Marital status changes ²				< 0.001
0	4,024 (78.6%)	22,324 (80.2%)	21,123 (79.1%)	
1	812 (15.9%)	4,730 (17.0%)	4,757 (17.8%)	
2	224 (4.4%)	633 (2.3%)	685 (2.6%)	
3+	61 (1.2%)	139 (0.5%)	130 (0.5%)	

Note. ¹Pearson's Chi-squared test for categorical; One-way ANOVA for continuous. ²During study period January 2008 to December 2018. Total percentage slightly exceeds 100 in some cases due to rounding

The incorrect Table 2 is:

Predictor	Against NPR illness control (n = 8,114)			Against FD-Trygd general control (n = 8,116)		
	OR ¹	95% CI ^a	p-value	OR ^a	95% CI ^a	p-value
Unadjusted analysis						
Age in 2008	1.00	[1.00, 1.01]	0.519	0.99	[0.99, 1.00]	0.144
Gender						
Men (reference)	1.00	—		1.00	—	
Women	0.78	[0.67, 0.91]	0.001	0.75	[0.64, 0.87]	<0.001
Exposure						
Married (reference)	1.00	—		1.00	—	
Divorce	2.42	[2.03, 2.88]	<0.001	2.42	[2.03, 2.88]	<0.001
Adjusted analysis						
Age in 2008	1.01	[1.00, 1.01]	0.134	1.00	[0.99, 1.00]	0.573
Gender						
Men (reference)	1.00	—		1.00	—	
Women	0.77	[0.66, 0.90]	0.001	0.75	[0.64, 0.87]	<0.001
Exposure						
Married (reference)	1.00	—		1.00	—	
Divorce	2.45	[2.06, 2.92]	<0.001	2.41	[2.02, 2.87]	<0.001

The correct Table 2 is:

Table 2 Logistic regressions for divorce on odds for first gambling disorder diagnosis

Predictor	Against NPR illness control (n = 7,441)			Against FD-Trygd general control (n = 7,443)		
	OR ¹	95% CI ¹	p-value	OR ¹	95% CI ¹	p-value
Unadjusted analysis						
Age in 2008	1.00	[1.00, 1.01]	0.261	1.00	[0.99, 1.00]	0.403
Gender						
Men (reference)	—	—		—	—	
Women	0.77	[0.65, 0.90]	0.002	0.73	[0.62, 0.86]	<0.001
Exposure						
Married (reference)	—	—		—	—	
Divorce	2.82	[2.36, 3.37]	<0.001	2.82	[2.36, 3.37]	<0.001
Adjusted analysis						
Age in 2008	1.01	[1.00, 1.02]	0.025	1.00	[0.99, 1.01]	0.720
Gender						
Men (reference)	1.00	—		1.00	—	
Women	0.75	[0.64, 0.89]	<0.001	0.73	[0.61, 0.86]	<0.001
Exposure						
Married (reference)	1.00	—		1.00	—	
Divorce	2.89	[2.41, 3.45]	<0.001	2.83	[2.36, 3.38]	<0.001

Note. ¹OR odds ratio, CI confidence interval. GD cases = 885

Abstract-Results

The sentence currently reads: Logistic regressions showed that transition through divorce was associated with higher odds of future GD compared to illness controls (odds ratio [OR]=2.45, 95% CI [2.06, 2.92]) and the general population (OR=2.41 [2.02, 2.87]).

The sentence should read: Logistic regressions showed that transition through divorce was associated with higher odds of future GD compared to illness controls (odds ratio [OR]=**2.89**, 95% CI [**2.41, 3.45**]) and the general population (OR=**2.83** [**2.36, 3.38**]).

Results

The incorrect paragraph is: Logistic regression results on analysis of exposure to divorce on GD are provided in Table 2 and informed RQ2. The interaction terms between gender and exposure were not statistically significant (NPR control: OR=1.11, 95% CI [0.74, 1.66]; FD-Trygd control: OR=1.15, 95% CI [0.76, 1.72]), so only main effect analyses are reported in the table. ORs were similar between the adjusted and unadjusted analysis. The analytic samples were comparable in terms of age distributions: M=50 (9) among GD cases, M=50 (10) among NPR controls, and M=51 (10) among FD-Trygd controls. Distribution gender differed somewhat, with the proportion of women being lower among cases with GD (23%) compared to NPR controls (26%) and FD-Trygd controls (28%). The results showed that getting divorced was associated with a higher odds ratio of receiving a GD diagnosis. The strength of association was comparable using both types of control groups. Using individuals with other illnesses as controls, those getting divorced had 2.45 (95% CI [2.06, 2.92]) times the odds of getting a GD diagnosis compared to individuals who remained married during the exposure period, based on the adjusted analysis. Using individuals from the general population as controls, those getting divorced had 2.41 (95% CI [2.02, 2.87]) times the odds of getting a GD diagnosis compared to individuals who remained married during the exposure period, based on the adjusted analysis.

The correct paragraph is: Logistic regression results on analysis of exposure to divorce on GD are provided in Table 2 and informed RQ2. The interaction terms between gender and exposure were not statistically significant (NPR control: OR=**1.16**, 95% CI [**0.76, 1.75**]; FD-Trygd control: OR=**1.21**, 95% CI [**0.79, 1.82**]), so only main effect analyses are reported in the table. ORs were similar for the adjusted and unadjusted analysis. The analytic samples were comparable in terms of age distributions: M=50 (**10**) among GD cases, M=50 (10) among NPR controls, and M=51 (10) among FD-Trygd controls. Distribution of gender differed somewhat, with the proportion of women being lower among cases

with GD (**22%**) compared to NPR controls (**27%**) and FD-Trygd controls (28%). The results showed that getting divorced was associated with a higher odds ratio of receiving a GD diagnosis. The strength of association was comparable using both types of control groups. Using individuals with other illnesses as controls, those getting divorced had **2.89** (95% CI [**2.41, 3.45**]) times the odds of getting a GD diagnosis compared to individuals who remained married during the exposure period, based on the adjusted analysis. Using individuals from the general population as controls, those getting divorced had 2.83 (95% CI [**2.36, 3.38**]) times the odds of getting a GD diagnosis compared to individuals who remained married during the exposure period, based on the adjusted analysis.

Discussion

The incorrect sentence is: The results showed that going through a divorce was associated with 2.45 and 2.41 higher odds of receiving a subsequent GD diagnosis in the case group compared to the NPR illness group and FD-Trygd general population group, respectively.

The correct sentence is: The results showed that going through a divorce was associated with **2.89** and **2.83** higher odds of receiving a subsequent GD diagnosis in the case group compared to the NPR illness group and FD-Trygd general population group, respectively.

The original article [1] has been corrected.

Published online: 19 February 2024

Reference

1. Syvertsen A, et al. Marital status and gambling disorder: a longitudinal study based on national registry data. *BMC Psychiatry*. 2023;23:199. <https://doi.org/10.1186/s12888-023-04697-w>.