

# Physical activity and tobacco smoking in the German adult population

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## BACKGROUND

In Germany more than 30% of the population currently smoke cigarettes<sup>1</sup> and only 45% achieve the recommendation of the World Health Organization (WHO) for physical activity (PA)<sup>2</sup>. Understanding how both co-occur can support designing interventions targeting PA and smoking behaviour.

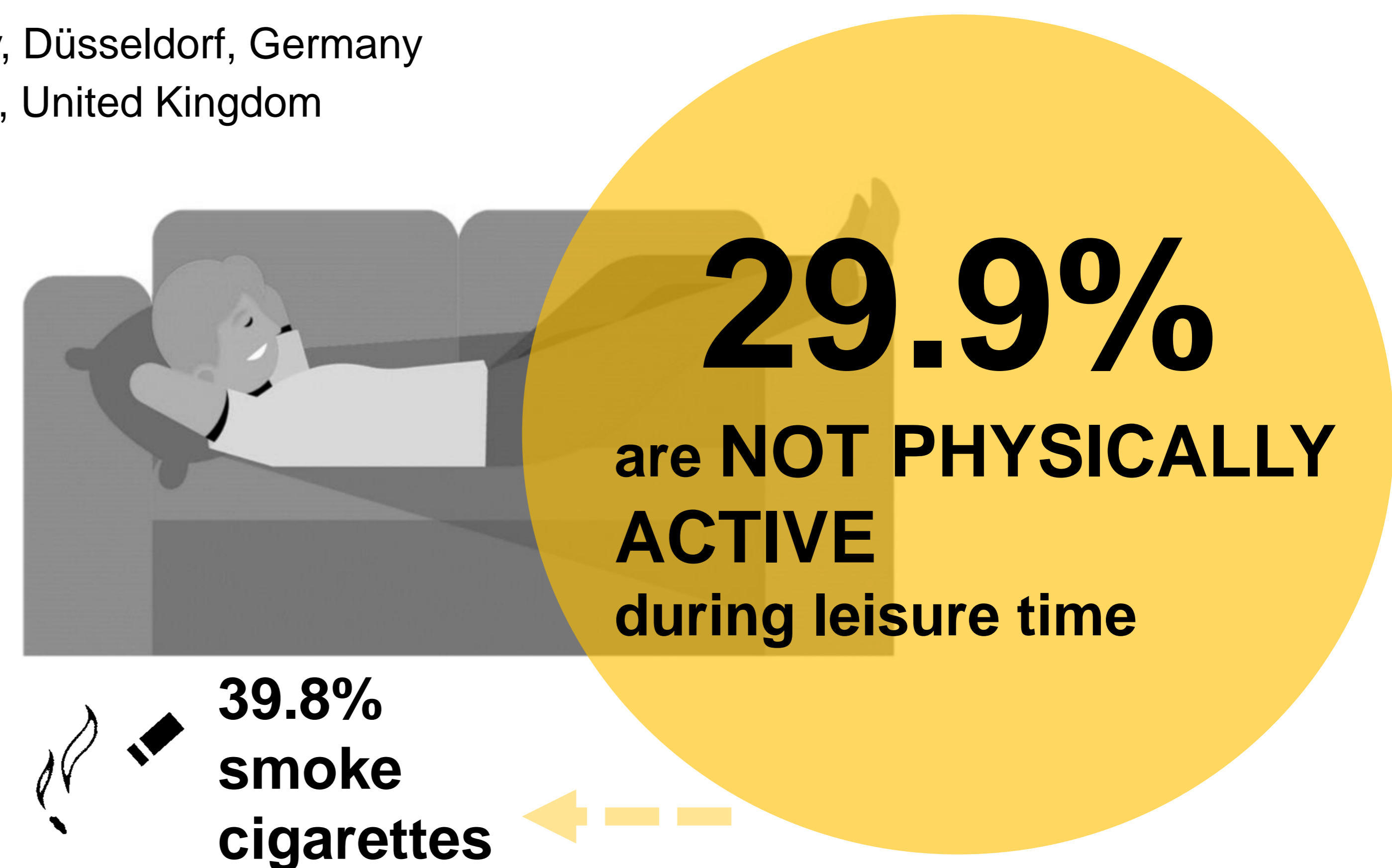
## METHODS

Data from the German Study on Tobacco Use (DEBRA)<sup>1</sup>, a cross-sectional survey of people aged at least 14 years (two waves from 04/2022-07/2022; N=4063). A single item according to Milton et al.<sup>3</sup> was used for PA. Associations between PA level (not active=reference/low/medium/very active) and a) smoking status (never=ref/ex/current smoker) b) number of cigarettes smoked per day (cpd) c) strength of and time spent with urges to smoke d) motivation to stop smoking (mtss) were calculated through regression analyses.

*"In a normal week, how much time in total do you spend on physical activity that increases your breathing rate? This may include sports, gymnastics, and brisk walking or bicycling for leisure or transportation. It does not include housework, gardening or physical activities that may be part of your job"*

## RESULTS

Odds of being a current vs. never smoker decreased with increasing PA level (OR=0.74,95%CI=0.69;0.79). Increasing PA level was associated with fewer cpd ( $\beta$ =-0.98,95%CI=-1.39;-0.55), lower strength of urges to smoke (OR=0.81,95%CI=0.74;0.89), higher mtss (OR=1.13,95%CI=1.02;1.24). Time spent with urges to smoke was not statistically significant (OR=0.93,95%CI=0.85;1.02).



Tab. 1 Weighted smoking rate by PA level<sup>†</sup>

	not active	low active	medium active	very active
Total adult sample	29.9 (1172)	28.2 (1104)	22.2 (869)	19.7 (770)
Never smoker	23.4 (440)	28.9 (542)	25.0 (470)	22.7 (426)
Ex smoker	26.4 (156)	29.7 (175)	23.2 (137)	20.7 (122)
Current smoker	39.8 (576)	26.7 (387)	18.1 (262)	15.3 (222)

Data are presented as percentage (number). <sup>†</sup>Definition of different PA levels was chosen to correspond with WHO recommended minimum level of PA with at least 150-300 min/week of moderate exercise<sup>2</sup>: not active (0 min/week); low active (1-149 min/week); medium active (150-300 min/week); very active (>301 min/week).

## CONCLUSION

PA level seems to be associated with smoking behaviour. However, our study design does not allow any causal inferences. Further research would need to show whether increasing PA level could influence the motivation to stop smoking and lead to a prolonged smoking abstinence through a reduction in urges to smoke.

## REFERENCES

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Please add "yes" or "no" to each table cell. If "yes", please turn cell background color to yellow.	Tobacco Industry	E-cigarette & nicotine product industry (excluding pharma)	Pharma Industry
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For more information about the study protocol just check the QR Code!

1 DEBRA Study. Deutsche Befragung zum Rauchverhalten, 2023 [retrieved from [www.debra-study.info/](http://www.debra-study.info/); last updated 03/07/2024]

2 Finger, J.D., Mensink, G., Lange, C., Manz, K., Health-enhancing physical activity during leisure time among adults in Germany. Journal of Health Monitoring, 2017. 2(2): p. 35-42.

3 Milton, K., S. Clemes, and F. Bull, Can a single question provide an accurate measure of physical activity? British Journal of Sports Medicine, 2013. 47(1): p. 44-48

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