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Physical and psychological violence perpetration and violent victimisation in the German adult population

Results of the German Health Interview and Examination Survey for Adults (DEGS1)

Depending on the breadth of definition, violence is an ubiquitous social phenomenon. Alongside state and collective violence, such as dictatorship, state terrorism and situations of civil war or war [1], individual violence in the public or in the private domain is in the focus of interest with regard to the everyday situation. According to a definition of Selg et al. [2], violence constitutes a serious form of aggression, entailing—in addition to malice—also an imbalance in psychological or physical power. Frequently, research distinguishes between direct (physical) and indirect forms of violence (verbal/psychological and social/relational, i.e. with the intention of damaging social relationships). With regard to individual violence, a further differentiation can be made according to the various social environments, within which an act of violence may occur: domestic violence, i.e. violence by or against a partner or another family member, violence in the workplace, or violence between known or previously unknown persons. From a developmental perspective, experiences of violence during childhood and adolescence are associated with a higher risk of revictimisation at a later age but also with an

increased risk of becoming a perpetrator of violence oneself [3, 4]. Experiences of violence are linked with considerable psychosocial and health impairments such as physical and mental injury, withdrawal and isolation, depression, anxiety disorders, social impairments in the victims, but also with delinquency, criminal prosecution, prison terms, personality disorders, substance abuse among perpetrators as well as worse job and educational opportunities among both victims and perpetrators of violence [5, 6, 7, 8], all of which serve to substantiate the considerable relevance to Public Health. As a risk factor for a variety of longlasting physical and psychological health impairments, violence continues to be underestimated in the health sciences [9].

Statistics (e.g. police records) and studies—especially on domestic violence—often show men to be the majority perpetrators of violence [10, 11]. It has been critically objected that the results from studies of this kind may be biased by the use of non-representative samples (e.g., samples with patients from emergency units or with residents of women’s refuges) as well as by vague definitions or one-sided focussing on physical

violence and female victimisation [12, 13, 14]. Consequently, it was deemed good epidemiological practice for a nationally representative health survey to collect data on at least both experiences of physical as well as psychological violence as victim and perpetrator among both sexes in various social environments. The aim of this study is to report sex-specific frequencies and context-specific distributions of physical and psychological violence in terms of victimisation and perpetration experiences in the German adult population and to examine associations with impairments in well-being in victims and sense of wrongdoing in perpetrators of violence.

Methods

Sample and methods

The German Health Interview and Examination Survey for Adults (“Studie zur Gesundheit Erwachsener in Deutschland”, DEGS) is part of the health monitoring system at the Robert Koch Institute (RKI). The concept and design of DEGS are described in detail elsewhere [15, 16, 17, 18, 19]. The first wave

(DEGS1) was conducted from 2008–2011 and included interviews, examinations and tests [20, 21]. The target population comprises the residents of Germany aged 18–79 years. DEGS1 has a mixed design which permits both cross-sectional and longitudinal analyses. For this purpose, a random sample from local population registries was drawn to complete the participants of the German National Health Interview and Examination Survey 1998 (GNHIES98), who re-participated. A total of 8,152 persons participated, including 4,193 first-time participants (response rate 42%) and 3,959 revisiting participants of GNHIES98 (response rate 62%). There were 7,238 persons who attended one of the 180 examination centres, and 914 were interviewed only. The net sample ($n=7,988$) permits representative cross-sectional and time trend analyses for the age range of 18–79 years in comparison with GNHIES98 ($n=7,124$) [19]. Active and passive experiences of physical and psychological violence were assessed in the 18–64 age range among a total of 5,939 participants, of which 3,149 were women and 2,790 men (unweighted reports). Since experiences of violence were not addressed in GNHIES98, this paper presents exclusively cross-sectional data. The analyses were carried out using a weighting factor, which corrects sample deviations from the population structure (as of 31 Dec 2010) with regard to age, sex, region and nationality, as well as type of municipality and education [19]. A separate weighting factor was calculated for the examination part. A non-response analysis and a comparison of selected indicators with data from census statistics indicate a high level of representativity of the net sample for the residential population aged 18–79 years of Germany [19]. In order to take into account both the weighting and the correlation of the participants within a sample point, the confidence intervals and p values were determined using the survey procedures for complex samples in SPSS-20. Non-overlapping 95% confidence intervals are deemed to be significant differences at the $p<0.05$ level. Socioeconomic status (SES) was determined using an index which includes information on formal education and vo-

catational training, occupational status and net household income (weighted by household needs) which enables a classification into low, middle and high status groups [22].

Any violence assessment requires a special consideration of ethical aspects. In addition to procedural safeguards via the inclusion of an ethics committee, in particular the safety and anonymity of the persons surveyed, intensive training and mentoring of the study personnel, as well as prepared measures for re-traumatisation of the participants potentially caused by the interview are to be mentioned here [23]. In the DEGS1 study, the safety of the participants was guaranteed by the survey being conducted in an examination centre outside the home within the framework of a health examination. The questions addressing violence experiences were incorporated in the written self-administered questionnaire. The questionnaires were not identified by name. The study staff was initially trained with regard to content and received continuously in-house corrective trainings, and was closely accompanied and supervised by the field management with both internal and independent external quality assurance [24]. Initial considerations of additionally including experiences of sexual violence in the survey were not realised because of the limited possibilities regarding crisis intervention in the examination setting. In case of any re-traumatisation potentially caused by the violence assessment, up-to-date local crisis lines and emergency addresses were researched in advance for each sample point and were available to the respective examination team.

Instruments

Despite an intensive search in the literature, a concise and solid screening instrument suitable for the use in a large health survey was not found. Consequently, a screening instrument on physical and psychological violence was developed and successfully pre-tested in the Robert Koch Institute with advisory support from the University of Bielefeld. In parallel to the DEGS1 survey, the violence screening instrument was clinically

validated using a sample of 830 patients who presented themselves in the out-patient department of the Clinic for Psychosomatic Medicine and Psychotherapy at the University of Düsseldorf for an initial consultation. The validation study is currently being evaluated.

All questions pertaining to being affected by violence refer to the past 12 months. Experiences of physical violence were assessed first, followed by experiences of psychological violence. In order to avoid psychological shut down effects, first victimisation and then perpetration experiences were assessed. The violence assessment started with an introductory sequence, which referred to experiences of violence in general form without explicitly mentioning the term “violence”. The sequence was as follows: “Sometimes people are attacked, involved in physical arguments or have experiences that they find injurious or traumatic. The questions that follow refer to these specific experiences in your everyday life”.

Physical violence

Thereafter, an introductory question was presented which comprised a common definition of physical violence found in many studies on violence [25]. For physical victimisation experiences, the question was: “In the past 12 months, have you experienced somebody physically attacking you (for example, hitting, slapping, pulling hair, kicking or threatening you with a weapon or an object)?” For physical perpetration experiences it was asked: “In the past 12 months, have you physically attacked somebody (for example, hitting, slapping, pulling hair, kicking or threatening somebody with a weapon or an object)?”

Psychological violence

For psychological victimisation experiences, the introductory question was: “In the past 12 months, has any other person been derogatory towards you (for example, with regard to your appearance, the way you dress, think, act or work or any possible disabilities)? Or have you been insulted, badmouthed, threatened, bullied or put under pressure?” And for perpetrator experience

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Physical and psychological violence perpetration and violent victimisation in the German adult population. Results of the German Health Interview and Examination Survey for Adults (DEGS1)

Abstract

Violence is of considerable relevance to Public Health. It was the aim of the violence screening implemented as part of the German Health Interview and Examination Survey for Adults (DEGS1) to assess data on physical and psychological violence in various social environments (partnership, family, workplace, public space). For the first time as part of a nationally representative health survey, the data were collected from the perspective of victim and perpetrator both among women and men. The study population was comprised of 5,939 participants aged between 18 and 64 years. Approximately every 20th participant reported being the victim of physical violence in the preceding 12 months, men significantly more frequently than women. With regard to the frequency of being the perpetrator of physical vio-

lence (overall prevalence 3.7%) there were no significant differences between the sexes. Psychological victimisation was reported by every fifth participant and overall perpetrating psychological violence was reported by every tenth. Women tended to be more frequently the victims but they were also significantly more frequently the perpetrators of both physical and psychological violence in the domestic area (partnership, family). In contrast, men more frequently reported being both the perpetrator and the victim of violence in the workplace and in public spaces. Young adults between 18 and 29 years as well as persons of low socioeconomic status were consistently more frequently affected by violence although there were exceptions with regard to psychological victimisation. More than three-quarters of the victims

of physical violence reported being greatly or extremely affected in their well-being by the violence and in the case of psychological violence the rate was about approximately 60%. Impairments in well-being following physical and psychological violence were considerably higher in men, especially in the case of domestic violence (partnership, family). Overall, women reported a greater sense of wrongdoing following violence perpetration than men; as to the perpetration of violence towards a partner, however, there was no difference between the sexes in this regard.

Keywords

Physical and psychological violence · Intimate partner violence · Workplace violence · Violence in the public space · Health survey

Körperliche und psychische Gewalterfahrungen in der deutschen Erwachsenenbevölkerung. Ergebnisse der Studie zur Gesundheit Erwachsener in Deutschland (DEGS1)

Zusammenfassung

Gewalterfahrungen sind von erheblicher Public-Health-Relevanz. Das Ziel der Studie zur Gesundheit Erwachsener in Deutschland (DEGS1) implementierten Gewaltscreenings war es, erstmalig in einem bundesweit repräsentativen Gesundheitssurvey Daten zu körperlicher und psychischer Gewalt in unterschiedlichen Sozialräumen (Partnerschaft, Familie, Arbeitsplatz, öffentlicher Raum) aus der Opfer- und Täterperspektive sowohl bei Männern als auch bei Frauen zu erheben. Die Studienpopulation bestand aus 5939 Teilnehmenden im Alter von 18 bis 64 Jahren. Körperliche Gewaltopfererfahrungen in den letzten 12 Monaten berichtete insgesamt etwa jeder 20. Teilnehmende, Männer signifikant häufiger als Frauen. Hinsichtlich der Häufigkeit von Tätererfahrungen

gen körperlicher Gewalt (insgesamt 3,7%) gab es keine signifikanten Geschlechtsunterschiede. Psychische Gewaltopfererfahrungen berichtete jeder fünfte, Tätererfahrungen psychischer Gewalt insgesamt jeder zehnte Teilnehmende. Frauen waren tendenziell häufiger Opfer, jedoch waren sie signifikant häufiger Täterinnen von körperlicher und psychischer Gewalt im häuslichen Bereich (Partnerschaft, Familie). Männer gaben dagegen häufiger an, am Arbeitsplatz sowie im öffentlichen Raum sowohl Täter als auch Opfer gewesen zu sein. Junge Erwachsene von 18 bis 29 Jahren sowie Personen mit niedrigem Sozialstatus waren durchgängig häufiger von Gewalt betroffen, wobei es Ausnahmen hinsichtlich psychischer Gewalterfahrungen gab. Mehr als drei Viertel der Opfer

von körperlicher Gewalt gaben an, dadurch in ihrem Befinden stark oder sehr stark beeinträchtigt zu sein, bei psychischer Gewalt waren dies ca. 60%. Das Belastungserleben infolge körperlicher und psychischer Gewaltopfererfahrungen war bei Männern insgesamt deutlich höher, insbesondere bei häuslicher Gewalt (Partnerschaft, Familie). Frauen gaben insgesamt ein höheres Unrechtserleben nach Gewaltausübung an als Männer; hinsichtlich der Ausübung von Partnergewalt gab es hier jedoch keine Geschlechtsunterschiede.

Schlüsselwörter

Körperliche und psychische Gewalt · Partnergewalt · Gewalt am Arbeitsplatz · Gewalt im öffentlichen Raum · Gesundheitssurvey

of psychological violence: “In the past 12 months, have you yourself been derogatory to any other person (for example, with regard to their appearance, the way they dress, think, act or work or any possible disabilities)? Or have you insulted, badmouthed, threatened, bullied someone or put another person under pressure?” The response options in all cases were “Yes” and “No”.

Social environment/ conflict partners

If the respective introductory question regarding physical and/or psychological violence was answered in the affirmative, participants were asked to indicate their conflict partners or the social environment in which the violent act happened, respectively. Possible choices were: “Partner”, “Person from the family/other rela-

tion”, “Colleague/superior at workplace”, “Other known person”, “Other (previously) unknown person”. Multiple answers were permitted.

Impairments in well-being following violent victimisation

With regard to both physical and psychological victimisation, the following item was used to assess impairments in

Tab. 1 The 12-month prevalence of experiences of physical violence among 18- to 64-year-old women and men according to age and SES in Germany (DEGS1)

	Victimisation rates			Perpetration rates		
	Women % (95%CI)	Men % (95%CI)	Overall % (95%CI)	Women % (95%CI)	Men % (95%CI)	Overall % (95%CI)
Overall	3.3 (2.6–4.2)	6.2 (5.0–7.6)	4.8 (4.1–5.6)	3.4 (2.7–4.4)	3.9 (3.0–4.9)	3.7 (3.1–4.3)
Age						
18–29 years	7.7 (5.6–10.6)	17.0 (13.6–21.1)	12.5 (10.4–14.9)	6.1 (4.1–9.1)	10.6 (7.8–14.2)	8.4 (6.6–10.6)
30–44 years	1.6 (0.9–2.8)	2.2 (1.3–3.8)	1.9 (1.3–2.8)	5.2 (3.7–7.3)	2.4 (1.4–4.0)	3.8 (2.9–5.0)
45–64 years	1.9 (1.3–2.8)	1.6 (0.9–2.8)	1.9 (1.3–2.8)	0.8 (0.4–1.4)	1.4 (0.8–2.4)	1.1 (0.7–1.6)
SES						
Low	6.3 (3.9–10.0)	9.5 (6.5–13.7)	7.9 (6.0–10.4)	2.9 (1.4–5.6)	5.7 (3.6–8.8)	4.3 (3.0–6.1)
Middle	3.0 (2.1–4.2)	6.1 (4.5–8.1)	4.5 (3.6–5.6)	4.0 (2.9–5.4)	3.9 (2.7–5.5)	3.9 (3.1–4.9)
High	1.8 (1.0–3.1)	3.4 (2.1–5.5)	2.7 (1.8–3.8)	2.3 (1.4–3.8)	2.5 (1.4–4.3)	2.4 (1.7–3.4)

CI confidence interval.

Tab. 2 The 12-month prevalence of experiences of psychological violence among 18- to 64-year-old women and men according to age and SES in Germany (DEGS1)

	Victimisation rates			Perpetration rates		
	Women % (95%CI)	Men % (95%CI)	Overall % (95%CI)	Women % (95%CI)	Men % (95%CI)	Overall % (95%CI)
Overall	20.2 (18.5–22.0)	17.3 (15.7–19.0)	18.7 (17.5–20.0)	9.9 (8.6–11.2)	11.3 (10.0–12.8)	10.6 (9.6–11.6)
Age						
18–29 years	30.2 (26.3–34.5)	26.4 (21.9–31.4)	28.3 (25.2–31.6)	15.6 (12.4–19.5)	20.1 (16.5–24.3)	17.9 (15.3–20.8)
30–44 years	19.9 (16.9–23.3)	19.3 (16.3–22.7)	19.6 (17.3–22.1)	10.7 (8.4–13.5)	12.8 (9.9–16.3)	11.7 (9.9–13.9)
45–64 years	15.2 (13.2–17.5)	11.0 (9.1–13.2)	13.1 (11.8–14.6)	6.3 (5.0–8.0)	5.6 (4.3–7.3)	6.0 (5.0–7.1)
SES						
Low	17.3 (15.7–19.1)	19.1 (15.3–23.7)	22.4 (19.4–25.7)	10.9 (7.7–15.2)	11.4 (8.1–15.8)	11.1 (8.6–14.3)
Middle	25.8 (21.2–31.1)	18.3 (16.1–20.9)	18.8 (17.2–20.6)	9.8 (8.3–11.6)	12.0 (10.2–14.0)	10.9 (9.6–12.3)
High	19.3 (17.2–21.6)	13.2 (10.6–16.3)	15.1 (13.0–17.5)	8.2 (6.0–10.9)	10.0 (7.6–13.2)	9.2 (7.4–11.3)

CI confidence interval.

well-being following victimisation: “How strongly do you feel or did you feel your well-being was impaired?” Response options were: “Not at all”, “Hardly”, “Somewhat”, “Greatly” or “Extremely”. For the present analyses, the response categories “Greatly” and “Extremely” were pooled.

Sense of wrongdoing following violence perpetration

Both the assessment of physical as well as psychological violence perpetration was followed by a question enquiring into a sense of wrongdoing: “Have you ever had a guilty conscience because of this or felt guilty?” The possible answers were “Yes” and “No”.

Results

Physical violence according to sex, age and SES

The prevalence of experiencing physical violence as a victim in the past 12 months in the German adult population aged between 18 and 64 years is 4.8% overall (■ **Tab. 1**). At 3.3%, women reported being the victims of physical violence in the past 12 months significantly less often than men (6.2%). Overall, 3.4% of women reported themselves having been the perpetrators of physical violence compared to 3.9% of men. The difference was not significant. As to age, young adulthood (18–29 years) proves to be greatly burdened by violence; with growing age, the victimisation and perpetration rates for physical violence decrease greatly. In addition, there is also a clear trend for there to be a greater burden through physical violence on people of low SES (for both victimisation and perpetration experiences). Here, the differences among women and men of low compared to high SES were significant.

Psychological violence according to sex, age and SES

At approximately 20%, the prevalence rates for victimisation by psychological violence were significantly higher than those for physical violence for both sexes (■ **Tab. 2**). Men and women reported approximately the same frequency of having been the perpetrator of psychological violence within the past 12 months at around 9%. Compared to higher age groups, again the 18–39 year olds were significantly more frequently affected by psychological violence (both by victimisation and perpetration experiences). Unlike experiences of physical violence, experiences of psychological violence—particularly with regard to violence perpetration—were by and large equally distributed across SES. With regard to psychological victimisation, men of low SES tended to report more frequently than women that they had been the victim of psychological violence. In contrast, among participants with medium and high SES, wom-

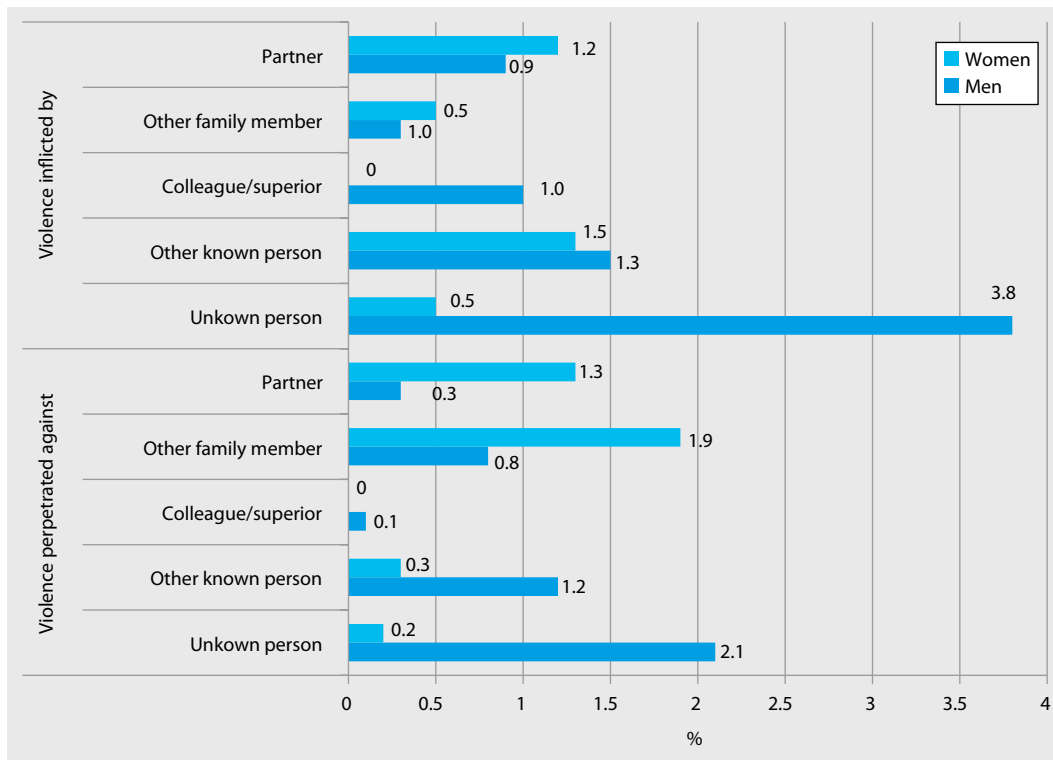


Fig. 1 ◀ Frequency of experiences of physical violence according to conflict partners (past 12 months, multiple responses permitted)

en were significantly more frequently affected than men.

Physical violence according to social environment/ conflict partner

According to their self-reports, women stated marginally more frequently at 1.2% than men at 0.9% ($p=0.404$) that they had been the victim of physical attacks by their partner (■ Fig. 1). Also, women tended to report more frequently than men being affected by physical attacks by other family members (1.0 vs. 0.5%; $p=0.552$). In all, 1% of men—but no women—reported having been physically attacked by colleagues or superiors in the workplace. Men tended to report more frequently than women physical attacks by other known persons (1.5 vs. 1.3%; $p=0.644$) and previously unknown persons (3.8% vs. 0.5%; $p<0.001$)

With regard to the perpetration of physical intimate partner violence, however, women (1.3%) reported significantly higher rates than men (0.3%; $p=0.003$; ■ Fig. 1). Also, women reported twice the frequency of physical violence perpetration against other family members as men (women 1.9 vs. men 0.8%; $p=0.001$).

In the workplace, 0.1% of men but no women used physical violence. Men, in contrast, were affected significantly more frequently by the perpetration of physical violence against known (1.2 vs. 0.3%; $p=0.004$) or previously unknown persons (2.1 vs. 0.2%; $p<0.001$).

Psychological violence according to social environment/ conflict partner

Almost twice as many women (6.1%) as men stated having been insulted, bad-mouthed, threatened, bullied or put under pressure by their partner ($p<0.001$; ■ Fig. 2). Almost the same frequencies and an identical sex ratio are also to be found for experiences of psychological victimisation by other family members ($p<0.001$). Approximately every eleventh woman and every eleventh man reported having experienced psychological violence at the workplace at the hands of colleagues or superiors ($p=0.728$). This form of psychological victimisation was thus reported most frequently by both men and women. Psychological victimisation by other known persons was reported to approximately the same extent by both men and women at around 6%

($p=0.096$); Psychological victimisation by previously unknown persons, however, was reported significantly more frequently by men ($p=0.019$).

Women tended to report more frequently having been the perpetrator of psychological violence towards their partner ($p=0.142$). Women also reported more frequently having been responsible for psychological violence perpetration towards another member of the family ($p=0.005$). In contrast it was men who were significantly more frequently the perpetrators of psychological violence towards colleagues or superiors ($p<0.001$), as well as other known ($p=0.001$) or previously unknown persons ($p<0.001$).

Victimisation and perpetration of violence in multiple social environments

With regard to physical victimisation a total of 169 (87.1%) out of 194 men reported being victimised by a single conflict partner, whilst 25 (12.9%) men reported being victimised by two or more conflict partners. In addition 98 (96.1%) of 102 women reported having been victim of one and four women (3.9%) re-

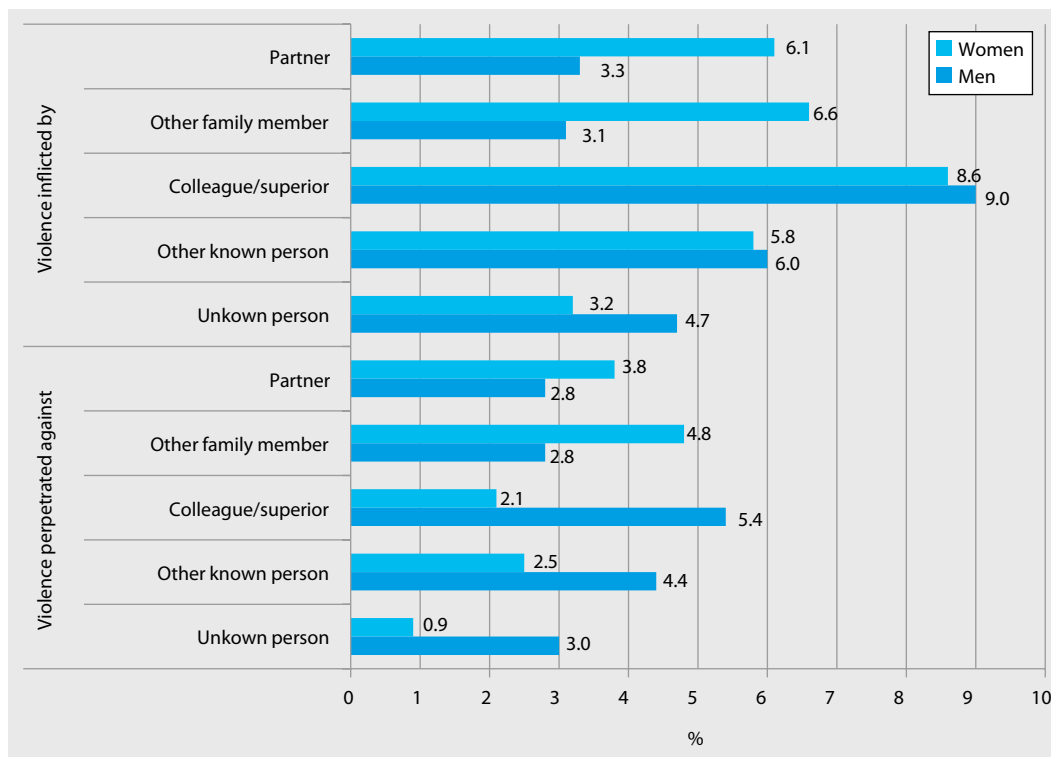


Fig. 2 ◀ Frequency of experiences of psychological violence according to conflict partners (past 12 months, multiple responses permitted)

ported two or more conflict partners (data not shown in table). With regard to physical violence perpetration, 91 (78.8%) out of 116 men with history of perpetration reported having been violent towards one conflict partner and 25 (21.2%) towards two or more of them. As to psychological victimisation, 415 (76.2%) out of 545 men reported being victimised by one and 130 (23.8%) men by two or more conflict partners. Of 624 women, 469 (75.1%) reported psychological victimisation by one and 155 (24.9%) by two or more conflict partners. Overall, 242 (68.1%) out of 355 men and 222 (73.0%) out of 304 women reported psychological violence perpetration towards only one conflict partner, whilst 113 (31.9%) men and 13 (30.0%) women reported having been responsible for psychological violence perpetration towards two or more conflict partners.

Impairments in well-being following violent victimisation according to sex, age and SES

Generally speaking, the extent of impairment in well-being following violent victimisation is high, whereby the

well-being is more greatly impaired as a result of physical than in the case of psychological victimisation. Overall, with regard to experiencing physical violence as a victim, almost three-quarters, and in the case of experiencing psychological violence, approximately 60% of participants reported great or extreme impairment of their well-being (■ Tab. 3). Overall, the percentage of men reporting great or extreme impairment as a result of victimisation was clearly and significantly higher than that of women. This is true for experiencing both physical and psychological victimisation across all age groups. However, there is one exception among women in the mid age-range between 30 and 44 years who significantly more frequently reported great or extreme impairment to their well-being after psychological victimisation than men. Inversely, in cases of low as well as high SES, women distinctly reported more frequently being impaired in their well-being by the experience of physical violence as a victim than did men (■ Tab. 3).

Impairments in well-being according to sex and conflict partner/social environment

In the following, we report impairments in well-being as related to the respective conflict partner or social environment (data not shown in table). The data refers exclusively to those who reported violence involvement as a victim or perpetrator with only one conflict partner. Therefore, the results should be interpreted with caution; however, the results of exploratory analyses for subjects indicating multiple conflict partners were similar.

Men, who reported having been the victim of physical violence by their partner reported considerably more frequently at 83.1% great or extreme impairments of their well-being than women did at 46.7% ($p=0.072$). With regard to physical violence by other family members, all men (100%) and 36.9% ($p=0.088$) of women reported great or extreme impairments. Physical victimisation in the workplace led among 80.9% of the men to great or extreme impairments (women reported no experience of physical violence in the workplace). A similar picture resulted with regard to both phys-

Tab. 3 Great or extreme impairment of individual well-being following violent victimisation among women and men in Germany according to age and SES (DEGS1)

	Physical victimisation			Psychological victimisation		
	Women % (95% CI)	Men % (95% CI)	Overall % (95% CI)	Women % (95% CI)	Men % (95% CI)	Overall % (95% CI)
Overall	52.2 (39.5–64.7)	83.2 (73.5–89.9)	72.5 (64.6–79.2)	49.7 (44.1–55.3)	70.0 (64.7–74.9)	59.3 (55.3–63.2)
Age						
18–29 years	66.5 (47.6–81.3)	86.6 (75.9–93.0)	80.5 (71.3–87.2)	61.8 (51.8–70.8)	84.8 (75.9–90.8)	72.8 (66.7–78.1)
30–44 years	44.1 (22.4–68.4)	76.1 (44.0–92.8)	63.3 (43.6–79.3)	72.8 (62.7–80.9)	45.8 (35.8–56.1)	59.6 (52.2–66.6)
45–64 years	25.5 (10.2–50.7)	77.9 (51.3–91.4)	55.6 (36.4–73.2)	40.6 (33.1–48.7)	47.8 (38.4–57.3)	43.7 (37.9–49.6)
Social status						
Low	94.2 (77.6–98.7)	57.1 (32.5–78.6)	79.5 (64.3–89.3)	45.2 (32.5–58.6)	64.3 (50.7–75.9)	53.8 (44.5–62.8)
Middle	49.6 (34.0–65.3)	82.1 (68.3–90.7)	71.1 (60.1–80.0)	49.9 (42.9–57.0)	70.5 (63.6–76.7)	59.9 (54.9–64.7)
High	69.3 (43.0–87.1)	43.4 (17.8–73.1)	61.7 (41.0–78.9)	49.4 (38.5–60.4)	73.7 (63.1–82.2)	60.8 (52.1–68.9)

CI confidence interval.

Tab. 4 Sense of wrongdoing after violence perpetration among men and women in Germany, stratified according to age and SES (DEGS1)

	Physical perpetration			Psychological perpetration		
	Women % (95%CI)	Men % (95%CI)	Overall % (95%CI)	Women % (95%CI)	Men % (95%CI)	Overall % (95%CI)
Overall	88.9 (78.4–94.6)	47.8 (36.3–59.4)	67.0 (58.5–74.5)	76.7 (69.6–82.5)	60.6 (53.4–67.3)	68.1 (63.2–72.7)
Age						
18–29 years	80.3 (58.3–92.2)	41.5 (27.3–57.3)	55.2 (42.2–67.5)	75.2 (63.2–84.3)	56.2 (44.4–67.4)	64.8 (55.8–73.0)
30–44 years	96.5 (87.7–99.1)	63.8 (35.1–85.1)	86.0 (71.8–93.7)	72.2 (57.4–83.4)	66.7 (53.1–77.9)	69.2 (59.6–77.4)
45–64 years	89.0 (62.0–97.6)	56.7 (24.9–83.8)	70.6 (44.3–87.8)	83.8 (73.7–90.6)	59.5 (45.5–72.1)	72.1 (62.5–80.0)
SES						
Low	84.7 (39.9–97.9)	55.5 (33.3–75.6)	64.9 (46.5–79.8)	69.5 (47.2–85.4)	55.4 (37.2–72.3)	34.8 (23.2–48.4)
Middle	91.2 (77.6–96.8)	48.9 (34.4–63.7)	70.8 (58.9–79.8)	76.7 (67.9–83.6)	58.7 (49.1–67.7)	67.0 (60.4–73.0)
High	81.7 (56.4–93.9)	28.4 (11.9–53.8)	52.9 (32.3–72.6)	81.3 (66.5–90.5)	70.6 (54.5–82.9)	75.1 (63.8–83.8)

CI confidence interval.

ical victimisation by known individuals (women 57.1%, men 84.1%; $p=0.089$) and unknown persons (women 69.9%, men 86.6%; $p=0.313$).

Overall, impairments in well-being following psychological victimisation by their partners were comparatively less in both sexes. However, both sexes reported impairments to their well-being with virtually the same frequency (women 49.8%; men 44.6%; $p=0.687$). Men were

more frequently impaired in their well-being with regard to psychological victimisation by other family members (women 38.8%, men 65.5%; $p=0.103$), by colleagues or superiors in the workplace (women 48.9%, men 62.1%; $p=0.050$), by known persons (women 60.5%, men 87.7%; $p=0.001$) and unknown persons (women 71.7%, men 86.2%; $p=0.169$).

Sense of wrongdoing following violence perpetration according to sex, age and SES

Approximately two-thirds of all participants reported a sense of wrongdoing in terms of a guilty conscience after both physical and psychological violence perpetration (■ **Tab. 4**). However, there were differences emerging between the sexes: Overall, after physical violence perpetration, women reported having a guilty conscience clearly and significantly more frequently at 88.9% and at 76.7% in the case of psychological violence than men (at 47.8% and 60.6%, respectively). These differences were consistently evident across age and SES, but for the perpetration of psychological violence they mostly did not reach statistical significance.

Sense of wrongdoing according to sex and conflict partner/social environment

The analysis with respect to the various conflict partners/social environments renders a further differentiation (data not shown in table). Again, the analyses refer to those people who reported incidents of victimisation or perpetration, respectively, with only a single conflict partner. Again, the corresponding sensitivity analyses for people who had several conflict partners revealed no substantial deviations. Nonetheless, the results are to be interpreted with caution.

Following perpetration of physical violence towards the partner, both sexes had virtually the same rates for a sense of wrongdoing (women 74.6%; men 76.5%, $p=0.921$). There were, however, sex differences with regard to a sense of wrongdoing after physical attacks on other family members (women 99.0%; men 63.7%, $p<0.001$) as well as after physical aggression towards known (women 82.2%; men 30.1%; $p=0.078$) and unknown individuals (women 64.4%; men 35.2%; $p=0.037$).

The sense of wrongdoing following psychological violence perpetration towards the partner (women 89.4%, men 86.4%; $p=0.779$), other family members (women 83.4%, men 71.5%; $p=0.302$) and colleagues or superiors in the workplace

(women 58.4%, men 52.4%; $p=0.650$) was distributed almost equally among women and men. However, among women, a guilty conscience following psychological violence perpetration towards an already known person (women 64.4%, men 35.2%; $p=0.039$) or hitherto unknown person (women 60.8%, men 37.0%; $p=0.323$) was significantly more frequent.

Discussion

In the DEGS1 study, the 12-month prevalence for individual experiences of physical and psychological violence was assessed in a total of 5,939 women and men aged between 18 and 64 years. Over the previous 12-month period, approximately every 20th adult had been affected as a victim by physical violence. The overall 12-month prevalence for being a perpetrator of physical violence was 3.4%. Comparable 12-month rates between 2 and 4% had been found as part of other international studies [26, 27]. Approximately 20% of the participants reported having been the victim of psychological violence; every 10th reported having perpetrated psychological violence. Overall, men were more frequently among the victims as well as among the perpetrators of physical violence, whilst the rates for psychological violence did not differ with regard to sex. To our knowledge, this study is among the first to examine psychological violence in a representative, population-based study considering victimisation *and* perpetration experiences in both women *and* men. In a survey that examined exclusively women, Coker et al. [28] found that experiencing psychological violence was associated just as strongly with negative health consequences as physical violence.

Physical violence is predominantly a phenomenon of early adulthood: the frequencies of both victimisation and perpetration experiences decrease greatly in both sexes with increasing age, which is plausible from a developmental point of view. Early adulthood is characterised by transition processes such as cutting ties with the parental home, vocational training and development, establishing a family and assuming social re-

sponsibility [29], all of which are accompanied by insecurities and therefore are associated with higher risks of conflict. The fact that there is a counter-association between physical violence and socioeconomic status also corresponds to findings in previous studies [30, 31].

In the past 12 months, 1.2% of women and 0.9% of men were victims of physical violence at the hands of their partners. Comparable frequencies (women 1.1%; men 0.6%) were found in both the National Violence Against Women Survey in the USA [32] as well as in a population-based representative study in Ireland (women 1.4%; men 1.4%) [33]. In our study, women tended to be more frequently the victims of both physical and psychological violence by other family members. To date, there is little research on this subject. A current analysis of all officially recorded incidences of child-initiated violence towards parents in the USA during the 1995–2005 period reveals that the majority of non-fatal attacks were perpetrated by males (62.6%) whereas the victims were mostly female (71.9%) [34]. The fact that in this study women rather than men were more frequently perpetrators of physical intimate partner violence—but also of violence towards other family members—is noteworthy. According to our data, female violence perpetration appears to be localised primarily in the domestic domain. With regard to the equal—or in part higher—rates of physical intimate partner violence by women towards men often found in population-based studies, it has frequently been argued that intimate partner violence by women is primarily exercised in self-defence against a male partner-aggressor [35]. However, Carney et al. [36] question this explanation in a current literature review. From the results that they have compiled from representative, population-based as well as clinical and developmental–psychological studies they conclude that female and male intimate partner violence not only occurs with almost the same frequency, but is also initiated by both men and women with almost the same frequency. They further conclude that male and female perpetrators are more similar in their psychosocial character-

istics than has been assumed until now [36]. Our data show that primarily physical but also of psychological victimisation is associated with considerable impairments in the well-being of those affected. As part of this, it has been demonstrated that great or extreme impairments in well-being following any kind of the victimisations investigated were significantly more frequently reported by men than by women. This might be indicative for a lack of a socially accepted victim role for men [37]. In this context, it should be noted that men who were victimised by family and intimate partner violence reported particularly severe impairments of their well-being. In contrast, a sense of wrongdoing in terms of a guilty conscience after physical or psychological violence perpetration was reported more frequently by women than by men. Nonetheless, there were no sex differences with regard a guilty conscience following intimate partner violence perpetration.

According our data, only men were the victims of physical violence (1%) and approximately 9% of both sexes were victims of psychological violence in the workplace. Violence in the workplace constitutes not only an immediate health risk but also has negative effects on the performance and health of the ones affected and in this way causes economic losses [38, 39, 40]. According to the results of the Fourth European Survey on Working Conditions (ESWC), which was conducted in 31 European countries in 2007, 5% of employees had been the victim of physical violence by persons within the workforce during the previous 12 months [41]. For Germany, the prevalence for physical victimisation in the workplace found in the ESWC study was 6% and thus was higher than that in ours. Amongst others, this might be caused by sampling effects (in the ESWC study only employees were surveyed, whilst in the DEGS1 study, the data refers to the entire population). Because in Germany women are generally less extensively part of the working population compared to men [42], our results imply that women—in relation to their share of the working population—are more frequently the victims of psychological vi-

olence in the workplace than men. This interpretation is supported by the results of the 2002 Federal German “Mobbing-Report” (Bullying and Harassment in the Workplace) [43].

According to official criminal records (i.e. police statistics) in Germany, violence in the public domain in terms of robbery, extortion or robberies of drivers are mainly committed by unknown persons, yet attempted or actual assaults are mainly committed by perpetrators known to the victim [11]. The perpetrators and victims of such acts of violence are predominantly men. A corresponding trend is also reflected in our data for both victimisation and perpetration experiences.

International studies not always clearly define violence in the non-domestic space (“community violence”) as opposed to domestic violence and workplace violence since in addition to violent events in the living environment, family violence is also often included (e.g. [5, 44]). People suffering from injuries as the result of a violent attack in public spaces are likely to exhibit considerable psychological impairments in addition to their physical injuries. Ramchand et al. [45] were able to show that the course of the healing process following physical traumatisation through violence is all the more unfavourable the greater the psychological trauma is immediately after a violent attack.

Limitations and strengths

This study does not claim to present a complete picture of violent events in the German adult population. In particular, reference is to be made to the lack of any assessment of sexual as well as social/relational violence. As initially stated, we were unable to examine these domains for reasons of feasibility and survey economy. However, on the basis of available data it can be assumed that sexual violence affects women to a far greater degree than men [8, 9], whilst social/relational violence may also significantly affect men [37]. Furthermore, our data does not provide information on the dynamics of a conflict or on injuries as potential consequences of violent acts. Al-

so, at the point of deployment, the violence screening instrument had not yet been clinically validated. The examination of sensitive domains such as violence always carries the risk of bias due to social desirability, or of under-reporting. However, the fact that our results are well comparable to the results of other international studies—as has been demonstrated—suggests that these potential flaws do not impact on the results of our study any more than on the results of others. A further limitation is the restriction of the violence assessment to participants aged between 18 and 64 years. Therefore, experiences of violence at an advanced age that might well be relevant to Public Health could not be examined. Nonetheless, the data represents an important gain for the current state of research into violence in Germany. Thus, for the first time, acts of physical *and* psychological violent victimisation among both men *and* women were surveyed on a nationally representative basis. By implementing the violence assessment into the German Health Interview and Examination Survey (DEGS1), the demand that had been voiced for some time of taking greater account of violence in Public Health research [46], has been met. In the future, the DEGS1 sample enables the examination of a variety of physical and psychological health parameters in the context of violent victimisation and violence perpetration. A further advantage is that the violence screening not merely includes domestic and/or intimate partner violence, but expands the spectrum of investigated social environments to include experiences of violence in the workplace as well as in the public space. This permits a more comprehensive view of the phenomenon of violence and its correlates in the field of health.

Conclusion

Experiences of violence are an often severe, sometimes fate-determining health and life risk for men and women. While there is already a high level of public awareness to women affected by violence and there are comparatively well-developed support structures for

them—not least prompted by the results of feminist violence research—experiences of violent victimisation by men still find little representation in the social and scientific discourse in spite of the fact that, overall, men are more frequently the victims of physical violence than women. It would, therefore, be desirable if a higher level of sensitivity and empathy for men as the victims of violence were to develop in the public awareness and that victimisation experiences by men were no longer stigmatised as “unmanly” [47]. The social acceptance of a male victim role opened up the possibility of a stronger anchoring of victim experiences in male self-perception as well as in masculine self-concepts.

The topics of “women as perpetrators of violence” and “men as the victims of violence” are socially still extensively tabooed and are only gradually being addressed by violence and gender research. In the past, there has been intensive controversy argued out mainly between family conflict researchers and more feminist oriented researchers surrounding the question as to whether both sexes suffer equally frequently from violent victimisation or whether women are more frequently and more seriously affected by violence than men, and whether women may likewise be aggressive and violent or even at approximately the same rates as men [14, 35, 48, 49]. From a health science perspective, the debate appears hardly expedient. Recently, however, feminist violence research has opened up to the possibility of male victimisation experiences and female perpetrating behaviour [50], which, in turn, establishes the perspective of a constructive discourse for the benefit of those affected by violence. Actually, any form of violence perpetration should clearly be socially rejected and the victims of violence—female and male—be provided with effective support. In doing so, however, the perpetrators’ need for appropriate psychosocial help should not be overlooked.

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