



City Research Online

City, University of London Institutional Repository

Citation: Malihi, Z. A., Fanslow, J. L., Hashemi, L., Gulliver, P. J. & McIntosh, T. (2021). Prevalence of Nonpartner Physical and Sexual Violence Against People With Disabilities. *American Journal of Preventive Medicine*, 61(3), pp. 329-337. doi: 10.1016/j.amepre.2021.03.016

This is the published version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: <https://openaccess.city.ac.uk/id/eprint/27822/>

Link to published version: <https://doi.org/10.1016/j.amepre.2021.03.016>

Copyright: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

Reuse: Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

City Research Online:

<http://openaccess.city.ac.uk/>

publications@city.ac.uk

Prevalence of Nonpartner Physical and Sexual Violence Against People With Disabilities



Zarintaj A. Malihi, PhD,¹ Janet L. Fanslow, PhD, MNZM,¹ Ladan Hashemi, PhD,¹
Pauline J. Gulliver, PhD,¹ Tracey K.D. McIntosh, PhD, MNZM²

Introduction: This study aims to determine the prevalence rates of nonpartner physical and sexual violence in men and women with different disabilities compared with those in people without disabilities.

Methods: Face-to-face interviews were conducted in 3 regions of New Zealand (2017–2019), and 2,887 randomly selected respondents participated (1,464 women, 1,423 men). Respondents provided information on the disability types (physical, intellectual, psychological, none) experienced and on the experience of physical and sexual violence since age 15 years. Analysis was conducted in 2020–2021.

Results: More people with disabilities reported nonpartner physical and sexual violence experience than those without disabilities. For women, 15.4% of those with disabilities experienced lifetime nonpartner physical violence, and 11.1% experienced lifetime nonpartner sexual violence. For men with disabilities, 56.2% experienced lifetime nonpartner physical violence, and 5.6% experienced lifetime nonpartner sexual violence. Women and men with psychological disabilities reported the highest prevalence rates of nonpartner physical and sexual violence. The main perpetrators of nonpartner physical violence for women with disabilities were parents and relatives (59.7%), whereas for men with disabilities, strangers (59.3%) were the main perpetrators. Among people with disabilities who reported nonpartner sexual violence, 43.5% of women and 60.0% of men never sought help.

Conclusions: This is one of the few studies globally reporting on the prevalence of nonpartner violence in both men and women with different disability types. It contributes information on the gender and relationships of those who perpetrated the violence. Findings highlight the need for violence prevention and intervention programs that are inclusive of and responsive to those with different disability types.

Am J Prev Med 2021;61(3):329–337. © 2021 American Journal of Preventive Medicine. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

INTRODUCTION

Globally, all forms of violence have been recognized as human rights violations,¹ but there have been ongoing calls for research assessing the prevalence of this problem for people with disabilities.² Approximately 15% of the world's population aged ≥15 years lived with some type of disability in 2010.³ Given the aging population, this rate is expected to increase.^{3,4}

Data on the prevalence of violence experienced by people with disabilities are scarce, with 1 systematic

review estimating that adults with disabilities were 1.5 times more likely to experience violence than

From the ¹Department of Social and Community Health, School of Population Health, Faculty of Medical and Health Sciences, The University of Auckland, Auckland, New Zealand; and ²School of Māori Studies and Pacific Studies, Faculty of Arts, The University of Auckland, Auckland, New Zealand

Address correspondence to: Janet L. Fanslow, PhD, MNZM, School of Population Health, The University of Auckland, Private Bag 92019, Auckland 1142, New Zealand. E-mail: j.fanslow@auckland.ac.nz
0749-3797/\$36.00

<https://doi.org/10.1016/j.amepre.2021.03.016>

those without disabilities⁵ and a population-based study from England and Wales estimating that 7.5% of violence experienced was attributed to disability.⁶ One New Zealand (NZ) study did not find an increased probability of 12-month prevalence of violence experienced by people with disabilities compared with that experienced by those without.⁷ The systematic review noted that the problem of limited data is compounded by gaps in the assessment of different types of disability (with more studies focusing on people with mental illness)⁵ and different types of violence (with many studies focusing only on assessing intimate partner violence).

The breadth of the term disability can also create measurement challenges because it can be described in terms of personal impairments, activity limitations, and participation restrictions. Disability can also be categorized by cause (e.g., accident, illness, congenital disorders, or genes) or with distinctions drawn between physical, intellectual, or mental health–related disability. In addition disabilities can be visible or hidden, and permanent or temporary.⁸

Gender differences may also play a role in how disability and violence interact. In the general population, men are at more risk of experiencing physical violence by other men (nonpartners), and women more at risk of experiencing sexual violence by both partners and nonpartners.⁹ Among people with disabilities, some studies suggest that women report more sexual violence and that men report more physical violence,¹⁰ whereas other studies are less clear that there are real differences in violence experiences between men and women with disabilities.^{11,12} Because of the intersectionality of multiple forms of discrimination (including gender-based, socioeconomic, and racial discrimination), it is important to explore the differences in violence experience for men and women with disabilities.^{13,14}

The 2019 New Zealand Family Violence Study provided a unique opportunity to estimate the prevalence rates of physical and sexual violence in women and men with different disability types. The aims included the following:

1. to determine the prevalence rates of nonpartner physical and sexual violence in people with physical, intellectual, psychological, and multiple disabilities compared with the prevalence reported by people without these disabilities;
2. to provide descriptive data on the frequency of violent episodes experienced, the gender of those who perpetrated the violence, and their relationship with those affected; and

3. to explore help-seeking behaviors in response to violence by people with disabilities.

METHODS

Study Sample

The 2019 New Zealand Family Violence Survey/He Koiira Mataopopore was a population-based study conducted between March 2017 and March 2019. Respondents were men and women from Waikato, Northland, and Auckland. Eligible participants were aged ≥ 16 years, lived at the property for ≥ 4 weeks before data collection, slept at the house for 4 nights per week on average, and were able to speak conversational English.

Every second and sixth house within a meshblock (the smallest geographic unit used for census) was selected from a random starting point identified by Stats NZ. Nonresidential properties, retirement villages, boarding houses, and rest homes were excluded. Specific meshblocks were allocated to each gender for safety reasons. Only 1 randomly selected person per household could participate. Details on sampling procedures are published elsewhere.¹⁵

Trained interviewers conducted face-to-face interviews with participants. Quality assurance procedures included interviewer training, regular meetings, audits, and reviews of completed interviews. Interviews were conducted in private locations, with no one else aged >2 years present. Respondents provided informed consent before the interview.

Of 9,568 approached households, 1,532 were ineligible to participate. Ineligibility reasons were as follows: (1) not being fluent in conversational English ($n=110$); (2) dwelling vacant, inaccessible, destroyed ($n=760$); and (3) no member of the household at home ($n=662$). Of 8,036 eligible households, 1,804 (22.4%) refused. Of the 6,232 remaining households, 1,271 participants were ineligible (e.g., did not speak English, incapacitated). A further 251 were not at home after multiple attempts. Of the remaining 4,710 eligible participants, 1,767 (37.5%) refused. After excluding incomplete interviews ($n=55$), 2,888 participants remained. Of these, 18 people did not respond to questions on disability status, and 1 person identified their gender as other; these individuals were not included in analyses. Participants included 1,440 (50.9%) women and 1,389 (49.1%) men for whom information on weighting variables were available. The final sample was broadly representative of the NZ population.¹⁵

Measures

The WHO Multi-Country Study on Violence Against Women questionnaire was adapted to include men and was pretested with a convenience sample.¹⁶ Questions were asked about sociodemographic factors, experiences of sexual and physical violence by nonpartners, frequency of violence experienced, perpetrator gender, the relationship of the perpetrator/s to the victims, and help-seeking behaviors.

Disability definitions used by the Washington Group Short Set and Stats NZ were used^{17,18} (i.e., “having a health problem or condition that lasted 6 months or more that causes difficulty, or stops one from doing activities”) (Appendix Table 1, available online).

Definitions for outcome variables are listed in Appendix Table 1 (available online). All outcomes were stratified by gender. Age,

Table 1. Prevalence of Physical or Sexual Violence Experienced From a Nonpartner by People With Disabilities Compared With Prevalence Experienced by People Without Disabilities, by Gender

Disability types	Physical violence since the age of 15 years				Sexual violence since the age of 15 years			
	Women		Men		Women		Men	
	n (%)	95% CI	n (%)	95% CI	n (%)	95% CI	n (%)	95% CI
Physical	42 (15.1)	10.63, 19.53	108 (55.5)	47.98, 62.94	30 (10.9)	6.96, 14.81	10 (5.3)	1.82, 8.70
^a p-value	0.09		<0.0001		0.10		0.009	
Intellectual	18 (17.1)	9.37, 24.81	39 (61.6)	49.95, 73.30	10 (8.6)	3.40, 13.84	6 (9.4)	1.52, 17.50
^a p-value	0.10		0.0003		0.87		0.004	
Psychological	15 (19.7)	11.04, 28.43	20 (62.2)	45.91, 78.41	11 (17.1)	7.45, 26.76	9 (33.3)	15.31, 51.35
^a p-value	0.02		0.01		0.01		<0.0001	
At least 1 disability	53 (15.4)	11.50, 19.30	123 (56.2)	49.32, 63.04	36 (11.1)	7.46, 14.82	12 (5.6)	2.29, 8.98
^a p-value	0.02		<0.0001		0.05		0.002	
Multiple disabilities	42 (17.0)	12.11, 21.86	87 (58.1)	49.90, 66.29	33.1 (12.8)	8.36, 17.32	12 (8.4)	3.56, 13.30
^b p-value	0.25		0.45		0.22		—	
No disability	123 (10.9)	8.88, 12.87	441 (38.3)	35.54, 41.10	89 (7.4)	5.77, 9.01	18 (1.6)	0.78, 2.53

^ap-value for the difference in violence experienced between those with at least 1 disability and those without that disability.

^bp-value for the difference in violence experienced between those with multiple disabilities and those with 1 disability.

education status, and area deprivation level were controlled for in the multivariate logistic regressions.

Statistical Analysis

Prevalence rates and 95% CIs, stratified by disability subtype and gender, were calculated for nonpartner physical and sexual violence experienced since age 15 years. The prevalence rates and 95% CIs were calculated for perpetrator gender, relationship of the perpetrator to the participant, and the frequency of violent episodes experienced. Chi-square tests were used to assess the differences between those with and those without disabilities. AORs were estimated to determine the probability of experiencing physical or sexual violence by a nonpartner in people with different disability types compared with that in those without disabilities, controlling for age, education status, and area deprivation level. The prevalence of help seeking from formal and informal sources was calculated for people with disabilities who had reported sexual violence by a nonpartner.

All analyses were conducted with survey procedures allowing for stratification variables for location (3 regions), for clustering by primary sampling unit, and for weighting (accounting for the number of eligible participants in the household). For all outcome variables, *do not know/do not remember/refused to answer* responses were considered missing. All analyses were conducted in SAS, version 9.4.

RESULTS

The prevalence rate for disability was 21.0% among women and 15.1% among men compared with 79% for women and 84.9% for men without disabilities ($p=0.0003$). The mean age for people with disabilities was 55.0 (SD=0.94) years, which was significantly higher than the mean age for those without disabilities (46.8 years, SD=0.50, $p<0.001$). Disability was more

prevalent in older age groups (27.1% in those aged ≥ 65 years and 22.3% in those aged 55–64 years vs 13.4% in those aged 16–29 years) and people with primary/secondary education attainment (20.9%) than in those with higher education attainment (15.8%). Those who identified as Māori were over-represented among those with any disability (26.3%) compared with those who identified as European New Zealanders (20.3%) and of other ethnicities. Prevalence of disability was not significantly different by area deprivation level ($p=0.83$) (Appendix Table 2, available online).

Table 1 shows the prevalence estimates of nonpartner physical and sexual violence experienced since age 15 years by people with each disability type by gender. Men with any type of disability had a higher probability of reporting nonpartner physical and sexual violence experience than men without disabilities ($p<0.05$). Respective prevalence rates for nonpartner violence in women with and without disabilities were 15.4% and 10.9% ($p=0.02$) for physical violence and 11.1% and 7.4% ($p=0.05$) for sexual violence. For men, the prevalence rates for nonpartner violence in people with and without disabilities were 56.2% and 38.3% ($p<0.0001$) for physical violence and 5.6% and 1.6% ($p=0.002$) for sexual violence.

For women, the prevalence of nonpartner physical or sexual violence was not different for those with a physical or intellectual disability compared with that for those without these disability types. As well, women who reported having multiple forms of disabilities did not report significantly higher rates of nonpartner physical or sexual violence than those who reported only 1 type of disability (Table 1). Nonpartner physical and sexual

Table 2. Frequency and Perpetrators (Gender and Relationship) of Nonpartner Physical and Sexual Violence Reported by Women With Disabilities Compared With Reports by Women Without Disabilities

Variables	Women with disabilities		Women without disabilities		p-value ^a
	n (%)	95% CI	n (%)	95% CI	
Physical violence					
Gender of the perpetrator ^b					0.92
Male	29 (55.3)	41.03, 69.68	73 (58.0)	47.75, 68.24	
Female	18 (33.9)	20.66, 47.20	40 (30.7)	21.87, 39.46	
Both	5 (10.7)	1.19, 20.24	9 (11.3)	3.98, 18.69	
How many times ^b					0.98
Once	21 (42.8)	28.05, 57.66	52 (42.8)	31.98, 53.54	
2–5	21 (37.5)	23.88, 51.12	46 (36.8)	27.02, 46.66	
>5	10 (19.6)	8.44, 30.84	25 (20.4)	11.82, 28.97	
Who did this to you? ^{b,c}					
Parents	18 (31.6)	18.75, 44.40	46 (37.5)	27.63, 47.37	0.48
Relatives/family	14 (28.1)	14.94, 41.20	31 (27.6)	18.58, 36.68	0.95
A friend or neighbor	2 (3.5)	0, 8.27	9 (9.2)	3.10, 15.32	0.18
Someone at school or work	6 (10.5)	2.48, 18.57	20 (15.1)	8.45, 21.81	0.40
Stranger/other	16 (31.6)	17.74, 45.41	24 (19.7)	12.19, 27.28	0.11
Sexual violence					
Gender of the perpetrator ^b					—
Male	31 (100)	—	78 (96.8)	90.45, 100.0	
Female	—	—	—	—	
Both	—	—	1 (3.2)	0, 9.53	
How many times ^b					0.05
Once	15 (42.1)	25.07, 59.14	55 (61.6)	50.58, 72.65	
2–5	11 (31.6)	15.14, 48.01	21 (28.2)	17.04, 39.52	
>5	7 (26.3)	9.24, 43.39	9 (10.1)	3.60, 16.60	
Who did this to you? ^{b,c}					
Parents	3 (12.2)	0, 25.54	9 (11.6)	3.72, 19.58	0.94
Relatives/family	6 (17.1)	3.76, 30.39	15 (21.4)	10.78, 31.94	0.61
A friend or neighbor	7 (19.5)	4.65, 34.37	23 (27.2)	16.91, 37.45	0.42
Someone at school or work	4 (12.2)	0.27, 24.12	13 (14.6)	6.26, 22.86	0.75
Stranger/other	16 (41.5)	23.92, 59.00	26 (28.2)	17.65, 38.65	0.18

^aChi-square test for the differences between those with and those without disabilities.

^bWeighted percentages were calculated for those people who experienced physical or sexual violence.

^cTotal % exceeds 100 because some experienced >1 event by different perpetrators.

violence among people with and without disabilities by gender and demographic characteristics is shown in [Appendix Table 3](#) (available online).

Men were the main perpetrators of nonpartner physical violence experienced by women (55.3%) and men (84.7%) with disabilities, which was consistent with the gender of those who used violence against women (58.0%) and men (93.6%) without disabilities ([Tables 2](#) and [3](#)).

For women, there was no significant difference in the frequency of nonpartner physical violence experienced by those with and without disabilities ([Table 2](#)). For women with and without disabilities, families (parents and other family members) were the main perpetrators of nonpartner physical violence. Among women with

disabilities, 31.6% experienced physical violence by strangers compared with 19.7% of women without disabilities ($p=0.11$).

All perpetrators of nonpartner sexual violence against women with and without disabilities were men (except 1 woman who reported experiencing sexual violence perpetrated by both genders). Strangers were the main perpetrators of nonpartner sexual violence against women with disabilities (41.5%) and without disabilities (28.2%). Parents (fathers and stepfathers) perpetrated 12.2% and 11.6% of nonpartner sexual violence experienced by women with and without disabilities, respectively ([Table 2](#)).

Men with disabilities were more likely to report experiencing >5 episodes of physical violence from a

Table 3. Frequency and Perpetrators (Gender and Relationship) of Nonpartner Physical and Sexual Violence Reported by Men With Disabilities Compared With Those Reported by Men Without Disabilities

Variables	Men with disabilities		Men without disabilities		p-value ^a
	n (%)	95% CI	n (%)	95% CI	
Physical violence					
Gender of the perpetrator ^b					0.01
Male	108 (84.7)	76.82, 92.51	415 (93.6)	91.02, 96.16	
Female	3 (2.7)	0, 5.87	10 (2.1)	0.66, 3.62	
Both	12 (12.7)	5.28, 20.05	18 (4.3)	2.18, 6.35	
How many times ^b					<0.0001
Once	23 (22.0)	13.45, 30.65	139 (31.0)	26.39, 35.61	
2–5	58 (44.0)	34.64, 53.36	245 (55.2)	50.22, 60.17	
>5	42 (34.0)	24.74, 43.26	63 (13.8)	10.23, 17.37	
Who did this to you? ^{b,c}					
Parents	16 (12.7)	6.39, 18.95	37 (8.7)	5.81, 11.63	0.20
Relatives/family	19 (17.3)	9.12, 25.54	25 (6.1)	3.52, 8.58	0.0005
A friend or neighbor	16 (14.0)	7.42, 20.58	31 (7.1)	4.42, 9.81	0.02
Someone at school or work	54 (42.7)	32.82, 52.5	202 (46.4)	40.97, 51.92	0.51
Stranger/other	73 (59.3)	49.74, 68.93	231 (50.5)	54.18, 55.88	0.11
Sexual violence					
Gender of the perpetrator ^b					0.39
Male	10 (80.0)	51.22, 100	10 (62.5)	36.53, 88.47	
Female	2 (20.0)	0, 48.77	7 (37.5)	11.53, 63.46	
Both	0		0		
How many times ^b					0.76
Once	5 (40.0)	5.50, 74.40	7 (52.2)	24.14, 80.21	
2–5	3 (33.3)	3.25, 40.23	5 (21.7)	3.25, 40.23	
>5	4 (26.1)	0, 53.22	4 (26.1)	0, 53.42	
Who did this to you? ^{b,c}					
Parents	0	—	0	—	—
Relatives/family	4 (33.3)	4.61, 62.1	0	—	—
A friend or neighbor	1 (13.3)	0, 38.86	7 (48.0)	17.91, 78.09	0.13
Someone at school or work	2 (13.3)	0, 32.86	4 (20.0)	1.07, 38.93	0.63
Stranger/other	5 (40.0)	9.55, 70.44	8 (36.0)	13.73, 58.27	0.82

Note: Boldface indicates statistical significance (**p*<0.05).

^aChi-square test for the differences between those with and those without disabilities. Where 1 cell is <5, the *p*-value for Fisher’s exact test is reported.

^bWeighted percentages are calculated for those who experienced physical or sexual violence.

^cTotal % exceeds 100 because some experienced >1 event by different perpetrators.

nonpartner (34.0%) than men without disabilities (13.8%, *p*<0.0001). Strangers were the main perpetrators of physical violence against men with (59.3%) and those without (50.5%) disabilities. Men with disabilities were more likely to report experiencing physical violence from family members (17.3%) or friends (14.0%) than men without disabilities (6.1% and 7.1%, respectively) (Table 3).

Of men who reported experiencing sexual violence by nonpartners, the majority noted that the main perpetrators were men (80.0%, *n*=10 men with disabilities; 62.5%, *n*=10 men without disabilities). Men also reported that strangers were the main perpetrators of nonpartner sexual violence (40.0%, *n*=5 men with

disabilities; 36.0%, *n*=8 men without disabilities). One third of men who reported experiencing nonpartner sexual violence identified that this was perpetrated by family members (Table 3).

Table 4 shows the AORs of reporting nonpartner physical and sexual violence experienced by women and men with different disability types compared with those reported by their counterparts without disabilities, after controlling for age, education, and area deprivation level. Women with physical disabilities, psychological disabilities, and multiple disabilities were significantly more likely to report experiencing nonpartner physical violence than those without that disability type. The same was true for nonpartner sexual violence, with the

Table 4. Association Between Nonpartner Physical or Sexual Violence Experienced by Disability Type and Gender

Disability types	Physical violence since the age of 15 years		Sexual violence since the age of 15 years	
	Women AOR ^a (95% CI)	Men AOR (95% CI)	Women AOR (95% CI)	Men AOR (95% CI)
Physical disability	1.58 (1.04, 2.41)	2.18 (1.56, 3.05)	1.39 (0.85, 2.28)	3.17 (1.29, 7.82)
No physical disability	1.00	1.00	1.00	1.00
Intellectual disability	1.71 (0.96, 3.03)	2.67 (1.57, 4.55)	1.05 (0.51, 2.15)	6.87 (2.30, 20.50)
No intellectual disability	1.00	1.00	1.00	1.00
Psychological disability	1.97 (1.11, 3.50)	2.50 (1.20, 5.19)	2.65 (1.28, 5.47)	43.74 (14.86, 128.66)
No psychological disability	1.00	1.00	1.00	1.00
At least 1 disability	1.64 (1.13, 2.38)	2.29 (1.67, 3.14)	1.55 (0.97, 2.50)	3.88 (1.62, 9.31)
No disability	1.00	1.00	1.00	1.00
Multiple disabilities	1.86 (1.21, 2.83)	2.48 (1.72, 3.56)	1.79 (1.09, 2.96)	7.59 (2.93, 19.61)
None or 1 disability only	1.00	1.00	1.00	1.00

^aAORs were adjusted for age, education, and area deprivation level. Weighted estimates are provided.

exception that although there was a trend toward women with physical disability experiencing more sexual violence than women without this type of disability, this did not reach statistical significance (AOR=1.39, 95% CI=0.85, 2.28). Women with intellectual disabilities did not report more experience of nonpartner physical or sexual violence than women without intellectual disabilities. Men with physical, intellectual, psychological, and multiple disabilities were significantly more likely to report both nonpartner physical or sexual violence experience than men without these disability types (nonpartner physical violence in those with ≥ 1 disability versus those with none: AOR=2.29, 95% CI=1.67, 3.14; for sexual violence: AOR=3.88, 95% CI=1.62, 9.31).

Appendix Table 4 (available online) shows the reported help-seeking behaviors by women and men with disabilities who ever experienced nonpartner sexual violence for their last experience. A large proportion of both women and men with disabilities never reported their experience to either formal or informal sources (range=41.9%–87.5%). Women with psychological disabilities and men with intellectual disabilities were least likely to report their latest nonpartner sexual violence experience to formal sources than people with other disabilities. People with any disabilities were more likely to talk about their experiences with a friend, a family member, or an acquaintance (range=12.5%–55.6%) than to formal sources (range=8.3%–41.7%).

DISCUSSION

This study used data from a population-based survey to provide novel information on the prevalence of nonpartner physical and sexual violence experienced by people with disabilities. Overall, regardless of disability status, men were more likely to experience nonpartner physical

violence, and women were more likely to experience sexual violence from nonpartners. Those with physical, psychological, intellectual, and multiple disabilities were more likely to report nonpartner physical and sexual violence experiences than those without these disabilities. This is consistent with previous research.^{5,6,19} For those with ≥ 1 disability, both women and men were almost 2 times more likely to experience nonpartner physical violence than their counterparts without disabilities. Experience of nonpartner sexual violence was more common for those with disabilities than for their counterparts without disabilities, particularly for men.

Consistent with other studies, men were the main perpetrators of nonpartner violence against both genders.^{6,19} For all women (with and without disability), parents and other family members were the main perpetrators of nonpartner physical violence and were a large proportion of those who perpetrated nonpartner sexual violence. Experiencing violence from parents and family who are supposed to provide care may have additional adverse health impacts, including cognitive effects.²⁰ Although not statistically significant ($p=0.05$), there are important implications of the finding that of women who reported experiencing sexual violence, more than half of women with disabilities (57.9%) experienced multiple (≥ 2) episodes than women without disabilities (38.3%). In addition, the fact that 41.5% of sexual violence experienced by women with disabilities was perpetrated by strangers (compared with 28.2% of women without disabilities) should inform new prevention strategies.

In this study, a lower proportion of men than women reported having a disability. Men with disabilities experienced significantly higher rates and frequency of nonpartner physical violence than men without disabilities,

and this was significantly more likely to be perpetrated by family members (other than parents) and friends or neighbors. However, strangers were the main perpetrators for both physical (59.3%) and sexual (40.0%) violence against men with disabilities. This differs from findings from a U.S. population-based study, which reported that friends were the main perpetrators of sexual violence against men and that acquaintances were the main perpetrators of sexual violence against women among those with disabilities.¹⁹ Men with ≥ 1 disability were 4 times more likely to experience sexual violence than men without disabilities, findings similar to those reported by Mitra and colleagues.²¹

People with psychological disabilities had the highest prevalence rates for both physical and sexual violence compared with those with other types of disabilities. This finding is broadly comparable with findings from Taiwan.^{22,23}

A large number of those with disabilities who experienced nonpartner sexual violence did not seek help from either informal or formal sources (range=41.9%–87.5%). For those who did seek help, most disclosed to family or friends, followed by those who disclosed to counselors. The proportion of those reporting to police was small, consistent with other NZ research.⁷ It has been suggested that people with disabilities who experience abuse from their carer (particularly a family member) are less likely to report sexual violence to police because they fear losing support from those on whom they are dependent.^{6,24} Because family members perpetrated a high proportion of physical and sexual violence experienced by those with disabilities, this may partly explain the low proportion of help seeking. Help seeking may be particularly challenging for men because societal norms associated with being independent and strong makes abuse disclosure difficult, as noted in a qualitative study of men with disabilities who experienced abuse from their personal assistants.²⁵ More research is warranted to investigate what changes would enable men to disclose sexual violence experience.

In NZ, there is no system in place for people with disabilities to report violence they experience.^{13,26,27} Interviews with people with disabilities and other stakeholders have shown barriers to abuse disclosure, including the negation of disclosed abuse, discounting the person's story by considering them unable to provide testimony to support prosecution, collusion with the abuse (i.e., denying the incident to protect the institution or a family member), and silencing those with disabilities through creating fear about loss of care.²⁶ People who experience a negative reaction to a disclosure of abuse are also less likely to report further abuse and can come to consider that this abuse is normal.²⁶

Policy and practice implications include the need for the development of prevention and intervention programs that meet the needs of people with different types of disabilities. Programs need to be implemented in ways that are accessible and appropriate, considering physical needs and the needs of those with intellectual and psychological disabilities because these individuals may have difficulty in understanding danger or in communicating their experiences in ways that others believe.^{6,25,28} To support these developments, there needs to be increased support and opportunity for violence services and disability service providers to collaborate.^{26,28}

Programs that address the needs of family and non-family who provide care for people with disabilities are also required. These may need to include adequate response options and support opportunities. The findings also speak to the importance of addressing social norms about masculinity and power. This is evident because men were the majority among those who perpetrated violence against both women and men with disabilities and without. The social norms that support men's use of violence need to be addressed as part of national prevention campaigns.¹³

Limitations

The violence prevalence rates may be underestimates because those who experience the most severe violence may have been less likely to participate in the study and because an assessment of the prevalence of violence experienced by participants when they were children was not included. In addition, the questions that assessed disability may not have captured the full range of disability experience, and because rest homes and institutions were excluded from the sample, those with more severe disabilities could have been missed. Recall bias could also limit the prevalence estimates, particularly for those with intellectual or cognitive disabilities. In addition, the severity of the disability experienced was not considered. However, a recent study did not find an effect from severity or visibility of disability on violence experience.²⁴ Finally, the cross-sectional nature of this study meant that the authors were not able to determine whether the disability or the violence occurred first. Other studies have identified reciprocal relationships between violence and disability.^{29,30}

CONCLUSIONS

This study is one of the few globally reporting on the population prevalence of violence from nonpartners in both men and women with different types of disabilities. It contributes information on the gender and relationships of those who perpetrated the violence. This study

fulfills a long-term request from the disability sector for detailed information on abuse against and help-seeking behavior by this at-risk population. Findings highlight the need for violence prevention and intervention programs that are inclusive of and responsive to those with different types of disabilities.

ACKNOWLEDGMENTS

The authors gratefully acknowledge the participants, interviewers, and study project team led by Patricia Meagher–Lundberg. The authors also acknowledge the representatives from the Ministry of Justice, Accident Compensation Corporation, New Zealand Police, and Ministry of Education, who were part of the Governance Group for Family and Sexual Violence at the inception of the study. The authors also acknowledge Dr. Debbie Hager for her assistance with convening the Disability Advisory Group for this study and for her constructive feedback on the manuscript.

The study funder had no involvement in the study design; collection, analysis, or interpretation of the data; writing of the manuscript; or the decision to submit the manuscript for publication.

This study is based on the WHO Violence Against Women Questionnaire as developed for use in the WHO Multi-country Study on Women's Health and Domestic Violence and has been adapted from the version used in Asia and the Pacific by kNOWVAWdata (version 12.03). It adheres to the WHO ethical guidelines for the conduct of violence against women research. The authors have received funding from the New Zealand Ministry of Business, Innovation, and Employment (Contract Number CONT-42799-HASTR-UOA).

Author responsibilities were as follows: JLF and PG originated the research question; ZM, JLF, and PG performed the analysis; LH coordinated the preparation of the database and data cleaning; ZM and JLF coordinated the writing of the article; JLF, PG, and TM performed the data collection. All authors participated in the writing of the article.

No financial disclosures were reported by the authors of this paper.

SUPPLEMENTAL MATERIAL

Supplemental materials associated with this article can be found in the online version at <https://doi.org/10.1016/j.amepre.2021.03.016>.

REFERENCES

1. Brundtland GH. Violence, health, and human rights: toward a shared agenda for prevention. *Health Hum Rights*. 2003;6(2):11–13. <https://doi.org/10.2307/4065427>.
2. Human Right Commission, Ombudsman, Disabled People's Organisations' Coalition (DPO Coalition). Making disability rights real Whakatūtu ngā Tika Hauātanga: third report of the independent monitoring mechanism of the Convention on the Rights of Persons with Disabilities: Aotearoa, New Zealand 2014–2019. Wellington, New Zealand: Human Right Commission, Ombudsman, Disabled People's Organisations' Coalition (DPO Coalition); June 2020. https://www.hrc.co.nz/files/3415/9348/7609/Making_Disability_Rights_Real_2014-2019_compressed.pdf. Published June 2020. Accessed January 23, 2021.
3. WHO. World report on disability 2011. Geneva, Switzerland: WHO; January 1, 2011. <https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/world-report-on-disability>. Published January 1, 2011. Accessed September 28, 2020.
4. Ageing and disability. United Nations Department of Economic and Social Affairs Disability. <https://www.un.org/development/desa/disabilities/disability-and-ageing.html>. Accessed September 28, 2020.
5. Hughes K, Bellis MA, Jones L, et al. Prevalence and risk of violence against adults with disabilities: a systematic review and meta-analysis of observational studies. *Lancet*. 2012;379(9826):1621–1629. [https://doi.org/10.1016/S0140-6736\(11\)61851-5](https://doi.org/10.1016/S0140-6736(11)61851-5).
6. Khalifeh H, Howard LM, Osborn D, Moran P, Johnson S. Violence against people with disability in England and Wales: findings from a national cross-sectional survey. *PLoS One*. 2013;8(2):e55952. <https://doi.org/10.1371/journal.pone.0055952>.
7. Ministry of Justice. New Zealand Crime and Victims Survey. Wellington, New Zealand: Ministry of Justice, New Zealand Government. <https://www.justice.govt.nz/justice-sector-policy/research-data/nzcvs/resources-and-results/>. Accessed May 5, 2021.
8. Disability definitions and etiquette. Employment New Zealand. <https://www.employment.govt.nz/workplace-policies/employment-for-disabled-people/disability-definitions-and-etiquette/>. Accessed January 23, 2021.
9. Hamby S, Grych J. *The Web of Violence: Exploring Connections Among Different Forms of Interpersonal Violence and Abuse*. New York: Springer, 2013.
10. Langley J, Gulliver P. A decade of serious non-fatal assault in New Zealand. *N Z Med J*. 2012;125(1363):65–76. https://assets-global.website-files.com/5e332a62c703f653182faf47/5e332a62c703f6e4af2fdd3d_langley.pdf. Accessed January 23, 2021.
11. Platt L, Powers L, Leotti S, et al. The role of gender in violence experienced by adults with developmental disabilities. *J Interpers Violence*. 2017;32(1):101–129. <https://doi.org/10.1177/0886260515585534>.
12. Olofsson N, Lindqvist K, Danielsson I. Higher risk of violence exposure in men and women with physical or sensory disabilities: results from a public health survey. *J Interpers Violence*. 2015;30(10):1671–1686. <https://doi.org/10.1177/0886260514548585>.
13. Hager DM. Not Inherently Vulnerable: An Examination of Paradigms, Attitudes and Systems That Enable the Abuse of Dis/abled Women[dissertation]. Auckland, New Zealand: The University of Auckland; 2017. Accessed June 23, 2021. <http://hdl.handle.net/2292/36826>.
14. Rees SJ, Silove DM. Gender-based violence and the threat to women's mental health. *Med J Aust*. 2011;195(8):434–435. <https://doi.org/10.5694/mja11.11073>.
15. Fanslow J, Gulliver P, Hashemi L, Malihi Z, McIntosh T. Methods for the 2019 New Zealand Family Violence Study—a study on the association between violence exposure, health and wellbeing. *Kōtuitui N Z J Soc Sci Online*. 2021;16(1):196–209. <https://doi.org/10.1080/1177083X.2020.1862252>.
16. Garcia-Moreno C, Jansen HAFM, Ellsberg M, Heise L, Watts C. *WHO multi-country study on women's health and domestic violence against women: initial results on prevalence, health outcomes and women's responses*. Geneva, Switzerland: WHO; 2005. <https://apps.who.int/iris/handle/10665/43309>. Accessed September 20, 2020.
17. The Washington group questions sets. Washington Group on Disability Statistics. <https://www.washingtongroup-disability.com/>. Accessed November 3, 2016.
18. Statistics NZ. Disability survey: 2013. Wellington: Stats NZ; 2014. http://www.stats.govt.nz/browse_for_stats/health/disabilities/DisabilitySurvey_HOTP2013.aspx. Accessed March 2, 2021.

19. Mitra M, Mouradian VE, Fox MH, Pratt C. Prevalence and characteristics of sexual violence against men with disabilities. *Am J Prev Med.* 2016;50(3):311–317. <https://doi.org/10.1016/j.amepre.2015.07.030>.
20. Kishimoto Y, Terada S, Takeda N, et al. Abuse of people with cognitive impairment by family caregivers in Japan (a cross-sectional study). *Psychiatry Res.* 2013;209(3):699–704. <https://doi.org/10.1016/j.psychres.2013.01.025>.
21. Mitra M, Mouradian VE, Diamond M. Sexual violence victimization against men with disabilities. *Am J Prev Med.* 2011;41(5):494–497. <https://doi.org/10.1016/j.amepre.2011.07.014>.
22. Lin LP, Yen CF, Kuo FY, Wu JL, Lin JD. Sexual assault of people with disabilities: results of a 2002–2007 national report in Taiwan. *Res Dev Disabil.* 2009;30(5):969–975. <https://doi.org/10.1016/j.ridd.2009.02.001>.
23. Lin JD, Lin LP, Lin PY, Wu JL, Li CD, Kuo FY. Domestic violence against people with disabilities: Prevalence and trend analyses. *Res Dev Disabil.* 2010;31(6):1264–1268. <https://doi.org/10.1016/j.ridd.2010.07.018>.
24. Dammeyer J, Chapman M. A national survey on violence and discrimination among people with disabilities. *BMC Public Health.* 2018;18:355. <https://doi.org/10.1186/s12889-018-5277-0>.
25. Saxton M, McNeff E, Powers L, Curry MA, Limont M, Benson J. We're all little John Waynes: a study of disabled men's experience of abuse by personal assistants. *J Rehabil.* 2006;72(4):3–14. Accessed June 23, 2021. <https://www-proquest-com.ezproxy.auckland.ac.nz/docview/236293260/fulltextPDF/4E4078A485D2485EPQ/4?accountid=8424>.
26. Roguski M. *The hidden abuse of disabled people residing in the community: an exploratory study.* Gisborne, New Zealand: Tairawhiti Community Voice; June 18, 2013. <http://www.communityresearch.org.nz/research/the-hidden-abuse-of-disabled-people-residing-in-the-community-an-exploratory-study/>. Published June 18, 2013. Accessed February 14, 2020.
27. Hager D. *Finding safety: provision of specialised domestic violence and refuge services for women who currently find it difficult to access mainstream services: disabled women, older women, sex workers and women with mental illness and/or drug and alcohol problems as a result of domestic violence.* Wellington, New Zealand: Winston Churchill Memorial Trust (N.Z.); 2011. https://nati-lib-primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?vid=NLNZ&docid=NLNZ_ALMA21304089140002836&context=L&search_scope=NLNZ. Published 2011. Accessed January 24, 2021.
28. Maher J, Spivakovsky C, McCulloch J, et al. *Women, disability and violence: barriers to accessing justice: final report acknowledgement of country.* Sydney, Melbourne, Australia: The Monash University; 2018. <https://arts.monash.edu/gender-and-family-violence/projects/women-disability-violence/>. Published 2018. Accessed September 28, 2020.
29. Silver E, Arseneault L, Langley J, Caspi A, Moffitt TE. Mental disorder and violent victimization in a total birth cohort. *Am J Public Health.* 2005;95(11):2015–2021. <https://doi.org/10.2105/AJPH.2003.021436>.
30. Fanslow J, Malihi Z, Hashemi L, Gulliver P, McIntosh T. Lifetime prevalence of intimate partner violence and disability: results from a population-based study in New Zealand. *Am J Prev Med.* 2021. In press.