

# Lifetime Prevalence of Intimate Partner Violence and Disability: Results From a Population-Based Study in New Zealand



Janet L. Fanslow, PhD, MNZM,<sup>1</sup> Zarintaj A. Malihi, PhD,<sup>1</sup> Ladan Hashemi, PhD,<sup>1</sup>  
Pauline J. Gulliver, PhD,<sup>1</sup> Tracey K.D. McIntosh, PhD, MNZM<sup>2</sup>

**Introduction:** There is no population-based study on prevalence rates for all forms of intimate partner violence experienced by people with different types of disabilities in New Zealand. This study compares the reported lifetime prevalence of intimate partner violence (physical, sexual, psychological, controlling behaviors, and economic abuse) for people with different types of disabilities with that reported by those without disabilities and tests whether there is a gender difference.

**Methods:** From March 2017 to March 2019, a total of 2,888 women and men aged  $\geq 16$  years participated in a cross-sectional study in New Zealand using a cluster random sampling method. Face-to-face interviews were used for data collection. The WHO Multi-country Study questionnaire was employed as the data collection tool. Logistic regression was conducted, and AORs were reported.

**Results:** Those with any disability reported significantly higher rates of most forms of intimate partner violence than those without disabilities, among both genders, including physical intimate partner violence (AOR=1.80, 95% CI=1.32, 2.47 for women, AOR=2.44, 95% CI=1.72, 3.45 for men) and psychological and economic abuse. Women with disabilities were more likely to report experiences of sexual intimate partner violence than men (range =13.5–17.1% vs 4.0%–21.2% in men). Men with intellectual disability were more likely to report physical intimate partner violence than women with intellectual disability (60.5% in men and 36.0% in women).

**Conclusions:** People with disabilities report experiencing a significantly high lifetime prevalence of intimate partner violence compared with people without disabilities. The results warrant policy and practice changes to identify early signs of abuse and intervene accordingly and warrant an investment in targeted violence prevention programs.

*Am J Prev Med* 2021;61(3):320–328. © 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, intimate partner violence (IPV) is the most common form of violence experienced by women,<sup>1</sup> resulting in long-term adverse physical and mental health outcomes.<sup>2,3</sup> The WHO estimates that the lifetime prevalence rates among women range from 13% to 61% for physical IPV, from 6% to 59% for sexual IPV, and from 20% to 75% for emotional IPV.<sup>4</sup> The lifetime prevalence of physical and/or sexual IPV for New Zealand women is 1 in 3 and 1 in 2 for psychological abuse.<sup>5</sup> There are fewer studies of the prevalence

of IPV against men; however, evidence from crime surveys suggests that men experience some forms of IPV at rates similar to those among women.<sup>6,7</sup>

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

Address correspondence to: Janet L. Fanslow, PhD, MNZM, Social and Community Health, School of Population Health, Faculty of Medical and Health Sciences, The University of Auckland, Private Bag 92019, Victoria Street West, Auckland 1142, New Zealand. E-mail: [j.fanslow@auckland.ac.nz](mailto:j.fanslow@auckland.ac.nz)  
0749-3797/\$36.00

<https://doi.org/10.1016/j.amepre.2021.02.022>

Disability is also prevalent within populations,<sup>8</sup> and there is increasing recognition that disability can enhance the risk of violence, whereas violence can result in or increase the severity of disability.<sup>9,10</sup> People and particularly women with disabilities have been reported to experience a higher prevalence of IPV, potentially because of physical dependency on their partner or because of perpetrators' perception of their vulnerability.<sup>11–13</sup> Those with a disability may also be less likely to leave a violent relationship if they are dependent on their partner to support their daily activities or economic wellbeing.<sup>14</sup> Experiencing IPV has also been found to cause greater adverse impacts for people with disabilities (e.g., mental health consequences, missed work, disturbed sleep, and suicide attempts).<sup>15,16</sup>

A systematic review of past 12-month physical or sexual IPV showed that higher rates were reported by those with a disability than by those without (pooled OR=1.78, 95% CI=1.42, 2.22).<sup>17</sup> There may also be different risks for those with different types of disability, with evidence that those with mental and intellectual disabilities are at a higher risk.<sup>17–19</sup> The pooled prevalence rate for IPV experienced by people with mental or psychiatric illnesses was 37.8% (95% CI=17.9, 60.2). Similarly, Hughes and colleagues<sup>17</sup> found that significantly higher prevalence rates for IPV experience were reported by people with mental (24.3%, 95% CI=11.3, 31.0) and intellectual (6.1%, 95% CI=2.5, 11.1) disabilities than the rates reported by those with unspecified disabilities (3.2%, 95% CI=2.5, 4.1).

Although not all studies report an increased prevalence of IPV for those with disabilities,<sup>11,20</sup> the weight of evidence from previous studies suggests that women and men with disabilities experience higher rates of IPV than those without.<sup>11,20</sup> Results from an Australian population-based study indicated that women and men with disabilities were more likely to report lifetime physical, sexual, or psychological IPV than those without disabilities (OR=1.78, 95% CI=1.20, 2.63).<sup>21</sup> Trend analyses of domestic violence against people with and without disabilities in Thailand showed that there was a significant increase in the reported prevalence of domestic violence for people with disabilities between 2006 and 2009, with the highest increase reported by people with intellectual disabilities.<sup>19</sup>

Although the population prevalence of disability in New Zealand is high (24% in 2013), there is limited evidence on the prevalence of IPV among people with disabilities.<sup>8</sup> The only population-based survey that explored this, the New Zealand Crime and Victims Survey (2018), did not find a difference between people with and those without disabilities in self-reported IPV victimization or the number of police reports.<sup>22</sup>

Globally, most studies that have explored the association between disability and IPV have only assessed 1 type of disability at a time (e.g., only physical or only intellectual disability). In addition, there is a paucity of data documenting the different subforms of IPV experienced by people with disabilities, with few studies on how disability status is associated with experiences of psychological abuse, controlling behaviors, and economic abuse.<sup>10,23</sup> This is a significant gap because these forms of IPV are highly prevalent in people without disabilities.<sup>24,25</sup>

The 2019 New Zealand Family Violence Survey provided an opportunity to address these information gaps. The aims included the following:

1. to describe the reported prevalence rates for lifetime physical, sexual, and psychological IPV as well as controlling behaviors and economic abuse experienced by men and women, by disability type;
2. to explore the association between disability types and different forms of IPV experience, comparing people with disabilities with those without disabilities; and
3. to explore gender differences in prevalence rates.

## METHODS

### Study Sample

In the 2019 New Zealand Family Violence Study, a population-based representative sample of men and women aged  $\geq 16$  years and who lived in Auckland, Waikato, and Northland regions was recruited between March 2017 and March 2019.<sup>26</sup> These 3 regions included about 40% of the New Zealand population and incorporated diverse ethnic groups, including Māori; Pacific; Asian; European; and Middle Eastern, Latin American, and African individuals. Ethics approval was granted by the University of Auckland Human Participants Ethics Committee (2016/018244).

Meshblocks (geographically defined areas identified by Statistics New Zealand) were used for sampling. Statistics New Zealand assisted with a random selection of meshblocks. From a random starting point within each meshblock, every second and sixth consecutive house was included. Statistics New Zealand randomly assigned meshblocks to 1 gender for safety reasons. Each house was visited by an interviewer who carried out a random selection of 1 household member and completed the interview. Only 1 eligible person could participate from each address.

Interviewers completed intensive training before data collection to ensure consistency and validity of the collected data. Data collection was conducted through face-to-face interviews. All participants gave written consent before the interview. At the completion of the interview, all participants (regardless of IPV disclosure status) were provided with a list of support agencies to contact if they had concerns about their safety.

Of 9,568 identified households, 1,532 did not match the inclusion criteria owing to (1) no one in the house able to speak conversational English ( $n=110$ ), (2) dwelling was inaccessible/destroyed or vacant ( $n=760$ ), and (3) no household member at

home after repeated visits ( $n=662$ ). A further 1,804 households (22.4%) refused to participate. Of the total 6,232 households who agreed to participate, 1,271 had no eligible participants, and for 251, the eligible participant was not at home after repeated visits. Of 4,710 eligible participants who were contacted, 1,767 (37.5%) refused to participate. After excluding incomplete interviews ( $n=55$ ), there were 2,888 participants with a completed interview. Participants were broadly representative of the New Zealand population.<sup>26</sup> Of these, 2,746 participants were ever-partnered, with information on weighting variables, and therefore were included in the analyses for this study. In total, 524 participants (18.5%) reported having  $\geq 1$  disability, of whom 309 (58.9%) reported having multiple disabilities. The mean age of participants with and without a disability was 57.3 (SD=17.5) years and 50.5 (SD=16.5) years, respectively.

## Measures

The study questionnaire was developed from the WHO Multi-country Study on Violence Against Women.<sup>27</sup> To ensure that it was relevant for the New Zealand context and appropriate for male participants, minor amendments were made to the questionnaire after a review from government agencies, Māori advisors, and other stakeholders, including representatives from the disability community. Additional questions to assess the nature of disability among participants were included. The questionnaire was then pretested using a convenience sample from both genders; participants from the lesbian, gay, bisexual, transgender, queer, and intersex community; participants with disabilities; and those who identified as Māori to check for appropriateness of the questions.

The lifetime prevalence of physical, sexual, or psychological IPV as well as of economic violence and controlling behavior were measured on the basis of operational definitions of violence used by the WHO Multi-country Study on Violence Against Women.<sup>27</sup> Appendix Table 1 (available online) summarizes the questions used to measure the lifetime experience for each IPV subtype. Responses of *I do not know/I do not remember* or *refused* were coded as missing.

Disability was measured on the basis of the Washington Group Short Set of questions. These questions were also used by Statistics New Zealand for the 2013 disability survey.<sup>8,28</sup> Participants were asked whether they had a health problem or a condition (that has lasted  $\geq 6$  months) that caused them difficulty with or stopped them from seeing, hearing, walking, lifting or bending, using their hands to hold an object, using their hands to grasp an object, or using their hands to use objects (physical disability); from learning, concentrating, or memorizing (intellectual disability); or from communicating, mixing with others, or socializing (psychological disability) or whether they any other long-term disability that stopped the participant from doing things that other people do (other disabilities). Individuals were classified as having a disability if they said *yes* to  $\geq 1$  impairment that lasted for  $\geq 6$  months.

Disability status is reported by age, gender, ethnicity, education status, food insecurity, and area deprivation level. The New Zealand Indices of Multiple Deprivation was used to measure area deprivation level, which was developed by combining 7 domains: geographic access, health, education, income, employment, housing, and crime.<sup>29</sup> Food security was measured by a question that asked whether respondents were ever worried about not having enough money to buy food and how frequently this occurred. A

binary variable for food security was then created (*yes, occasionally, sometimes, often, or all the time*=1; *never*=0). This measure of food security was used to estimate household economic status.

## Statistical Analysis

Lifetime prevalence rates and 95% CIs, stratified by disability subtype and gender, were calculated for each form of IPV (physical, sexual, psychological, controlling behavior, and economic abuse). Chi-square tests were used to determine whether there were differences in lifetime IPV prevalence between those with  $\geq 1$  disability and those with no disability. Chi-square tests were also used to investigate the differences for reporting each IPV form experienced by disability subtypes for men and women. AORs were calculated to determine whether there were significant differences between the forms of IPV experienced by participants with each disability type and between those with  $\geq 1$  disability and those without disabilities and in participants with multiple disabilities compared with those with 1 disability, controlling for age, ethnicity, education status, food insecurity, and area deprivation. Owing to the very small numbers for the Middle Eastern, Latin American, and African group, this ethnic group was dropped from the logistic models.

Data analyses were conducted in SAS, version 9.4. All analyses were conducted with survey procedures to allow for clustering by primary sampling units, with stratification variables for sample location (3 regions) and weighting of data (to account for the number of eligible participants in the household).

## RESULTS

The prevalence of disability among this ever-partnered sample was 19.2%. Table 1 shows the demographic characteristics of the participants by disability status. Disability was more prevalent in women (21.1%) than in men (15.7%), more prevalent in older age groups (27.1% in those aged  $\geq 65$  years) than in younger age groups (13.4% in those aged 16–29 years), more prevalent in people with a primary/secondary education attainment (22.0%) than in those with higher education attainment (15.8%), and more prevalent in those without an independent income (25.2%) than in those with an independent income (17.5%). Those who identified as Māori were over-represented among those with any disability (26.3%) compared with European New Zealanders (20.3%) and those of other ethnicities. Of those with  $\geq 1$  disability, a larger proportion were food insecure ( $p<0.0001$ ) (Table 1).

Of 524 participants with disabilities, 177 (35.1%) reported that an injury or accident was the cause of their disability, and of this group, 33 (18.6%) reported that their injury was due to physical or psychological abuse or both. Other causes of disabilities were disease (31.1%), aging (27.1%), congenital condition (5.8%), or other (14.6%).

Tables 2 and 3 show the women's and men's reported lifetime prevalence of different forms of IPV experienced by participants with  $\geq 1$  disability and those without

**Table 1.** Demographic Characteristics of Those With Different Types of Disability Among an Ever-Partnered Sample

Sociodemographic and economic factors	Disability						
	None <i>n</i> =2,207, <i>n</i> (%) <sup>a</sup>	Any (at least 1) <i>n</i> =524, <i>n</i> (%)	Physical <i>n</i> =448, <i>n</i> (%) <sup>b</sup>	Intellectual <i>n</i> =160, <i>n</i> (%) <sup>b</sup>	Psychological <i>n</i> =94, <i>n</i> (%) <sup>b</sup>	Only 1 versus >1 ( <i>n</i> =524) <sup>c</sup>	
						Only 1 <i>n</i> =158, <i>n</i> (%)	Multiple <i>n</i> =366, <i>n</i> (%)
Gender							
Men	1,099 (78.9)	309 (21.1)	259 (17.7)	94 (6.5)	66 (4.5)	90 (28.8)	219 (71.1)
Women	1,108 (84.3)	215 (15.7)	189 (13.6)	66 (4.9)	28 (2.0)	68 (33.5)	147 (66.5)
<i>p</i> -value		<b>0.001</b>	<b>0.01</b>	0.10	<b>0.0008</b>		0.29
Age group, years							
16–29	256 (86.4)	43 (13.4)	23 (8.0)	14 (4.9)	15 (4.3)	23 (52.9)	20 (47.0)
30–44	601 (89.0)	81 (11.0)	63 (8.5)	26 (3.3)	21 (2.7)	33 (43.8)	48 (56.2)
45–54	442 (81.9)	93 (18.1)	81 (15.7)	24 (4.7)	18 (3.2)	27 (28.9)	66 (71.1)
55–64	382 (77.7)	114 (22.3)	105 (20.8)	37 (7.4)	18 (3.5)	28 (21.7)	86 (78.3)
≥65	523 (72.9)	193 (27.1)	176 (24.5)	59 (8.4)	22 (3.0)	47 (24.8)	146 (75.2)
<i>p</i> -value		<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>0.005</b>	0.70		<b>0.0002</b>
Education							
Primary/secondary	864 (78.0)	264 (22.0)	227 (18.6)	82 (6.8)	45 (3.8)	76 (29.7)	188 (70.3)
Higher	1,338 (81.2)	257 (15.8)	218 (13.4)	78 (4.9)	49 (2.9)	80 (31.5)	177 (68.5)
<i>p</i> -value		<b>0.0001</b>	<b>0.005</b>	<b>0.04</b>	0.17		0.69
Ethnicity							
European	1,526 (79.6)	388 (20.3)	335 (17.6)	119 (6.3)	69 (3.6)	119 (31.3)	269 (68.7)
Māori	216 (73.7)	79 (26.3)	63 (20.5)	20 (7.1)	16 (5.5)	24 (30.8)	55 (69.2)
Pacific	124 (89.4)	19 (10.6)	17 (9.4)	8 (4.7)	1 (0.4)	4 (18.5)	15 (81.5)
Asian	305 (92.4)	30 (7.6)	28 (7.0)	9 (2.1)	6 (1.2)	9 (32.4)	21 (67.6)
MELAA	33 (83.0)	7 (17.0)	4 (10.6)	4 (8.5)	2 (4.3)	2 (37.5)	5 (62.5)
<i>p</i> -value		<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>0.02</b>	<b>0.001</b>		0.83
Deprivation							
Least deprived	625 (82.6)	132 (17.4)	110 (14.6)	43 (5.6)	22 (2.9)	41 (31.8)	91 (68.2)
Moderately deprived	956 (81.4)	223 (18.6)	192 (15.7)	70 (5.9)	46 (3.7)	73 (33.8)	150 (66.2)
Most deprived	624 (80.9)	168 (19.1)	145 (16.5)	47 (5.5)	26 (2.9)	44 (26.1)	124 (73.9)
<i>p</i> -value		0.75	0.65	0.96	0.57		0.30
Independent income							
Yes	1,889 (82.5)	418 (17.5)	361 (15.1)	123 (5.43)	65 (2.6)	132 (32.4)	286 (67.6)
No	316 (77.3)	106 (25.2)	87 (18.6)	37 (7.6)	29 (6.4)	26 (24.8)	80 (75.2)
<i>p</i> -value		<b>0.02</b>	0.09	0.07	<b>&lt;0.001</b>		0.16
Food security							
Food secure	1,875 (84.4)	362 (15.6)	314 (13.5)	106 (4.7)	58 (2.5)	116 (32.6)	246 (67.5)
Food insecure	325 (69.2)	161 (30.8)	133 (25.2)	54 (10.2)	36 (6.4)	42 (27.0)	119 (73.9)
<i>p</i> -value		<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>		0.25

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

<sup>a</sup>Weighted percentages.

<sup>b</sup>Percentages for columns 3–5 were calculated for the total sample. Many had >1 disability, so the total does not add to 100.

<sup>c</sup>The denominator for these columns are those participants with disabilities.

MELAA, Middle Eastern Latin American African.

disabilities. In general, those who had  $\geq 1$  disability were more likely to report IPV than those who did not have a disability, in both genders (all chi-square tests for all disability subtypes were significant at the  $p < 0.05$  level).

Psychological abuse was reported by majority of the participants with  $\geq 1$  disability (60.3% of women and 51.2% of men). People with a psychological disability reported the highest prevalence rates for almost all types

of IPV (73.7% of women and 70.0% of men reported psychological abuse).

Women with any disability reported significantly higher rates of experiencing sexual IPV (16.9%) than men with any disability (5.0%) ( $p = 0.0002$  for interaction test). Men with intellectual disabilities were more likely to report physical IPV (60.5%) than women with intellectual disabilities (36.0%) ( $p = 0.002$  for chi-square test).

**Table 2.** Prevalence of Lifetime IPV Reported by Women by Disability Type

Disability type	Physical IPV (n=404)		Sexual IPV (n=188)		Psychological IPV (n=688)		Controlling behaviors (n=307)		Economic IPV (n=208)	
	n <sup>a</sup> (%)	95% CI	n (%)	95% CI	n (%)	95% CI	n (%)	95% CI	n (%)	95% CI
No disability	281 (24.7)	21.77, 27.57	130 (11.1)	9.15, 13.04	500 (44.1)	40.48, 47.70	212 (18.9)	16.33, 21.45	143 (14.1)	11.79, 16.32
Physical	96 (38.2)	32.01, 44.40	47 (16.9)	12.63, 22.25	148 (57.5)	50.80, 64.14	76 (31.2)	25.00, 37.45	51 (23.0)	18.06, 28.91
Intellectual	33 (36.0)	26.06, 46.01	15 (13.5)	7.37, 19.66	47 (48.6)	38.24, 59.06	23 (24.3)	14.92, 33.72	18 (20.6)	11.47, 29.84
Psychological	32 (48.7)	35.24, 62.13	12 (17.1)	7.61, 26.60	49 (73.7)	61.98, 85.38	19 (28.9)	17.07, 40.82	18 (33.3)	19.60, 47.07
At least 1	120 (40.3)	34.52, 46.03	56 (16.9)	12.89, 20.99	185 (60.3)	54.43, 66.13	94 (31.7)	25.89, 37.44	64 (24.7)	19.11, 30.38
Multiple	85 (39.2)	32.42, 46.01	36 (14.9)	10.25, 19.46	124 (56.1)	48.96, 63.20	61 (29.0)	22.58, 34.46	45 (24.4)	17.93, 30.86

<sup>a</sup>Weighted estimates.

IPV, intimate partner violence.

**Table 3.** Prevalence of Lifetime IPV Reported by Men by Disability Type

Disability type	Physical IPV (n=383)		Sexual IPV (n=27)		Psychological IPV (n=526)		Controlling behaviors (n=257)		Economic IPV (n=155)	
	n (%) <sup>a</sup>	95% CI	n (%)	95% CI	n (%)	95% CI	n (%)	95% CI	n (%)	95% CI
No disability	282 (25.9)	22.78, 29.09	18 (1.5)	0.77, 2.26	412 (36.8)	33.67, 39.96	200 (19.2)	16.41, 22.06	110 (10.0)	8.00, 11.94
Physical	82 (46.0)	38.31, 53.66	7 (4.0)	0.92, 7.11	97 (50.9)	43.07, 58.71	46 (23.5)	17.58, 29.53	38 (18.5)	12.82, 24.12
Intellectual	36 (60.5)	48.04, 72.94	3 (6.2)	0, 13.23	39 (61.7)	49.40, 74.06	19 (32.1)	19.41, 44.79	18 (30.0)	17.01, 43.98
Psychological	17 (63.6)	46.08, 81.19	4 (21.2)	2.39, 40.04	19 (70.0)	52.88, 86.51	9 (30.3)	13.49, 47.11	6 (20.0)	5.07, 34.93
At least 1	97 (47.3)	40.00, 54.57	9 (5.0)	1.62, 8.45	111 (51.2)	43.87, 58.46	54 (24.7)	18.74, 30.67	44 (19.8)	14.23, 25.45
Multiple	74 (55.0)	46.29, 63.65	7 (5.8)	1.38, 10.31	81 (56.7)	48.05, 65.40	41 (27.9)	20.45, 35.36	34 (22.3)	15.30, 29.05

<sup>a</sup>Weighted estimates.

IPV, intimate partner violence.

Among individuals with  $\geq 1$  disability, the reported prevalence of experiencing controlling behaviors was 31.7% for women and 24.7% for men and was significantly higher than the rates reported by those without disabilities for women (chi-square test,  $p < 0.0001$ ). Economic abuse was also more commonly reported by people with disabilities (24.7% in women and 19.8% in men) than by those without (chi-square test,  $p < 0.0001$  for both women and men).

After controlling for age, ethnicity, food security, and area deprivation level, individuals with  $\geq 1$  disability were significantly more likely to report experiencing all types of IPV during their lifetime than those without disabilities (AORs ranged from 1.55 to 1.87 for women and from 1.66 to 3.19 for men) (Table 4). Exceptions were for sexual IPV for women, where there was no significant difference in prevalence for those with and those without disabilities (OR=1.32, 95% CI=0.91, 1.91). For men, there was no significant difference between the controlling behavior reported by those with  $\geq 1$  disability and that reported by men without disabilities (OR=1.46, 95% CI=0.99, 2.13).

For both genders, having multiple disabilities did not increase the lifetime risk of experiencing IPV compared with having 1 disability. The only exception was for men with multiple disabilities, who were more likely to report an experience of physical IPV than men with only 1 disability (OR=2.86, 95% CI=1.25, 6.52) (Appendix Table 2, available online).

## DISCUSSION

This study found that people with disabilities were more likely to have experienced IPV in their lifetime than those without a disability. The findings were consistent across all types of disabilities and all forms of IPV (physical, sexual, psychological, controlling behaviors, and economic abuse) for both women and men. Lifetime prevalence was not significantly higher for those with multiple disabilities than for those who had 1 disability. These results are broadly consistent with results of population-based studies on people with disabilities and IPV from Australia, the U.S., and Denmark<sup>11,18,21</sup> and highlight the increased likelihood of IPV experience for those with a disability and the increased likelihood of sexual IPV among women with a disability compared with that among men.

This study contributes to the field by reporting on lifetime prevalence for all forms of IPV for those with different types of disabilities. Of particular importance is the inclusion of people with a psychological disability, a form of disability that is frequently invisible and has often been excluded from previous research on IPV.<sup>30,31</sup>

**Table 4.** Association Between Disability Status and Different Forms of IPV Reported by Women and Men

Variables	Physical IPV		Sexual IPV		Psychological abuse		Controlling behavior		Economic abuse	
	AOR (95% CI) <sup>a</sup>	Men	AOR (95% CI)	Men	AOR (95% CI)	Men	AOR (95% CI)	Women	AOR (95% CI)	Men
No disability (ref group)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Physical disability	1.62 (1.16, 2.27)	2.26 (1.57, 3.25)	1.34 (0.90, 1.98)	2.04 (0.65, 6.43)	1.62 (1.18, 1.90)	1.74 (1.19, 2.55)	1.91 (1.32, 2.77)	1.39 (0.93, 2.07)	1.31 (0.90, 1.93)	1.42 (0.88, 2.29)
Psychological disability	2.00 (1.06, 3.78)	3.73 (1.67, 8.32)	1.12 (0.55, 2.27)	– <sup>b</sup>	2.35 (1.30, 4.27)	3.38 (1.50, 7.62)	1.16 (0.64, 2.11)	1.51 (0.63, 3.60)	2.29 (1.20, 4.37)	1.66 (0.59, 4.65)
Intellectual disability	1.36 (0.87, 2.15)	3.54 (1.96, 6.38)	0.94 (0.52, 1.68)	– <sup>b</sup>	0.92 (0.59, 1.43)	2.43 (1.35, 4.41)	1.12 (0.65, 1.93)	1.93 (1.04, 3.59)	1.18 (0.66, 2.11)	2.83 (1.44, 5.54)
At least 1 disability	1.80 (1.32, 2.47)	2.44 (1.72, 3.45)	1.32 (0.91, 1.91)	3.19 (1.25, 8.11)	1.78 (1.34, 2.34)	1.75 (1.24, 2.49)	1.87 (1.32, 2.65)	1.46 (0.99, 2.13)	1.55 (1.07, 2.25)	1.66 (1.08, 2.56)

<sup>a</sup>Adjusted for age, education, food security, deprivation index, and ethnicity; ORs were estimated using logistic regression models (weighted estimates).

<sup>b</sup>Numbers were too small for a reliable estimate; the frequency for the cell is <6. IPV, intimate partner violence.

Notably, for both genders, those with a psychological disability were most likely to report IPV experience. Those with intellectual impairments also reported high rates of IPV victimization. Similar results have also been reported by other nationally representative studies<sup>16,19</sup> and systematic reviews.<sup>32</sup>

Consistent with previous studies that report on IPV in people with disabilities, this study found significantly higher rates of psychological abuse and physical and sexual IPV in those with disabilities than in those without.<sup>33,34</sup> It extends previous work by reporting on the prevalence of controlling behaviors and economic abuse. Previous researchers have proposed that people with disabilities are reliant on their partners for care, which can increase their risk of experiencing controlling behaviors and may make leaving relationships more difficult.<sup>12</sup> However, this study also identified that a proportion of disabilities resulted from the experience of physical or psychological IPV. This is consistent with other studies that have identified the reciprocal relationships between IPV and disability.<sup>31</sup>

Prevention efforts for IPV need to be inclusive of people with all types of disabilities,<sup>30</sup> with particular attention directed to increasing the accessibility of prevention programs for people with psychological (difficulties with communicating, mixing with others, or socializing) and intellectual disabilities (learning, concentrating, and memorizing). In addition, shelters, police, and other IPV support agencies need to have the capacity and resources to respond to the needs of people with disabilities.<sup>35</sup>

Both prevention and response services also need to be equipped with the knowledge and resources to address intersectional issues, such as the overlapping nature of gender, ethnicity, and disability. This is imperative because women had higher proportions of disability than men, and Māori had higher proportions of disability than people of other ethnicities. In addition, the gendered nature of violence needs consideration because women tend to be subjected to more severe and frequent IPV, with greater impacts in terms of injuries and fear.

This study is drawn from a large population-based sample, which is broadly representative of the New Zealand population in terms of sociodemographic characteristics<sup>36</sup> and disability.<sup>8</sup> It provides previously unavailable information on the prevalence of different disability types and the associated experience of multiple forms of IPV.

### Limitations

Despite providing clear information on the association between disability and IPV experience, there are some limitations. The prevalence of disability may be

underestimated because the survey sample was drawn from community-dwelling adults and because those in residential care or assisted living were excluded (i.e., may exclude those with the most severe forms of disability). Resources did not allow for additional accommodations to support full participation by those with disabilities. These exclusions may also have contributed to the underestimation of IPV. In addition, the disability measure used had limited utility for assessing some types of disability and did not consider the disabling aspects of social contexts and built environments.<sup>13</sup>

### CONCLUSIONS

This study contributes to the current literature by providing a detailed assessment of the lifetime prevalence of IPV experienced by people living with a disability. Findings have the potential to inform policy decisions and should support the allocation of resources and the development of strategies to prevent and address violence experience with and for people with disabilities.

### ACKNOWLEDGMENTS

The authors gratefully acknowledge the participants, interviewers, and study project team led by Patricia Meagher-Lundberg. 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, are also acknowledged.

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.

Dr. Debbie Hager assisted with convening the Disability Advisory Group for this study and provided consultancy and constructive feedback on the manuscript. This study is based on the WHO Violence Against Women Instrument 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. Funding was received from the New Zealand Ministry of Business, Innovation and Employment, contract number CONT-42799-HASTR-UOA.

JLF originated the research question and supported data analysis and the writing of the article. ZM conducted the data analysis and, with JLF, coordinated the writing of the article. LH coordinated the preparation of the database and data cleaning. PG contributed to the analysis design and originating the research questions. JLF, PG, and TM were coinvestigators on the grant that supported 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.2021.02.022>.

## REFERENCES

- WHO. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva, Switzerland: WHO; Published October 20, 2013. <https://www.who.int/publications/i/item/9789241564625>.
- Delara M. Mental health consequences and risk factors of physical intimate partner violence. *Ment Health Fam Med*. 2016;12(1):119–125. <https://doi.org/10.25149/1756-8358.1201004>.
- Coker AL, Davis KE, Arias I, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prev Med*. 2002;23(4):260–268. [https://doi.org/10.1016/s0749-3797\(02\)00514-7](https://doi.org/10.1016/s0749-3797(02)00514-7).
- Garcia-Moreno C, Jansen HA, Ellsberg M, Heise L, Watts CH. Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. *Lancet*. 2006;368(9543):1260–1269. [https://doi.org/10.1016/S0140-6736\(06\)69523-8](https://doi.org/10.1016/S0140-6736(06)69523-8).
- Fanslow JL, Robinson EM. Sticks, stones, or words? Counting the prevalence of different types of intimate partner violence reported by New Zealand women. *J Aggress Maltreat Trauma*. 2011;20(7):741–759. <https://doi.org/10.1080/10926771.2011.608221>.
- Australian Institute of Health and Welfare. Family, domestic and sexual violence in Australia 2018. Canberra, Australia: Australian Institute of Health and Welfare, Published February 28, 2018. <https://www.aihw.gov.au/getmedia/d1a8d479-a39a-48c1-bbe2-4b27c7a321e0/aihw-fdv-02.pdf.aspx?inline=true>. Accessed September 12, 2020.
- Elkin M. Domestic abuse: findings from the crime survey for England and Wales: year ending March 2018. South Wales, United Kingdom: Office for National Statistics. <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/domesticabusefindings-fromthecrimesurveyforenglandandwales/latest>. Published November 22, 2018. Accessed February 26, 2020.
- Stats NZ. *Disability survey: 2013*. Wellington, New Zealand: Stats NZ, Published June 17, 2014. <https://www.stats.govt.nz/assets/Uploads/Disability-survey/Disability-survey-2013/Disability-survey-2013-additional-documents/Disability-Survey-2013.pdf>. Accessed March 12, 2021.
- Van der Heijden I, Dunkle K. *What works evidence review: preventing violence against women and girls with disabilities in lower-and middle-income countries (LMICs)*. Washington, DC: Ukaid, September 2017. <https://www.whatworks.co.za/documents/publications/114-disability-evidence-brief-new-crop-3/file>. Published. Accessed December 22, 2020.
- Gupta J, Cardoso LF, Ferguson G, et al. Disability status, intimate partner violence and perceived social support among married women in three districts of the Terai region of Nepal. *BMJ Glob Health*. 2018;3(5):e000934. <https://doi.org/10.1136/bmjgh-2018-000934>.
- Breiding MJ, Armour BS. The association between disability and intimate partner violence in the United States. *Ann Epidemiol*. 2015;25(6):455–457. <https://doi.org/10.1016/j.annepidem.2015.03.017>.
- Dockerty C, Varney J, Jay-Webster R, et al. *Disability and domestic abuse risk, impacts and response*. London, United Kingdom: Public Health England, Published November 2015. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/480942/Disability\\_and\\_domestic\\_abuse\\_topic\\_overview\\_FINAL.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/480942/Disability_and_domestic_abuse_topic_overview_FINAL.pdf). Accessed March 2, 2020.
- Dunkle K, Gibbs A, Chirwa E, Stern E, Van Der Heijden I, Washington L. How do programmes to prevent intimate partner violence among the general population impact women with disabilities? Post-hoc analysis of three randomised controlled trials. *BMJ Glob Health*. 2020;5(12):e002216. <https://doi.org/10.1136/bmjgh-2019-002216>.
- Copel LC. Partner abuse in physically disabled women: a proposed model for understanding intimate partner violence. *Perspect Psychiatr Care*. 2006;42(2):114–129. <https://doi.org/10.1111/j.1744-6163.2006.00059.x>.
- Coston BM. Disability, sexual orientation, and the mental health outcomes of intimate partner violence: a comparative study of women in the U.S. *Disabil Health J*. 2019;12(2):164–170. <https://doi.org/10.1016/j.dhjo.2018.11.002>.
- Khalifeh H, Oram S, Trevillion K, Johnson S, Howard LM. Recent intimate partner violence among people with chronic mental illness: findings from a national cross-sectional survey. *Br J Psychiatry*. 2015;207(3):207–212. <https://doi.org/10.1192/bjp.bp.114.144899>.
- 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).
- Dammeyer J, Chapman M. A national survey on violence and discrimination among people with disabilities. *BMC Public Health*. 2018;18(1):355. <https://doi.org/10.1186/s12889-018-5277-0>.
- 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>.
- Brownridge DA. Partner violence against women with disabilities: prevalence, risk, and explanations. *Violence Against Women*. 2006;12(9):805–822. <https://doi.org/10.1177/1077801206292681>.
- Krnjacki L, Emerson E, Llewellyn G, Kavanagh AM. Prevalence and risk of violence against people with and without disabilities: findings from an Australian population-based study. *Aust N Z J Public Health*. 2016;40(1):16–21. <https://doi.org/10.1111/1753-6405.12498>.
- Ministry of Justice. New Zealand Crime and Victims Survey: key findings: cycle 1 (March - September 2018) descriptive statistics. Wellington, New Zealand: Ministry of Justice, Published 2019. <https://www.justice.govt.nz/assets/Documents/Publications/NZCVS-Y2-core-report-for-release-.pdf>. Accessed June 26, 2020.
- Chirwa E, Jewkes R, Van Der Heijden I, Dunkle K. Intimate partner violence among women with and without disabilities: a pooled analysis of baseline data from seven violence-prevention programmes. *BMJ Glob Health*. 2020;5(11):2156. <https://doi.org/10.1136/bmjgh-2019-002156>.
- Kutin J, Russell R, Reid M. Economic abuse between intimate partners in Australia: prevalence, health status, disability and financial stress. *Aust N Z J Public Health*. 2017;41(3):269–274. <https://doi.org/10.1111/1753-6405.12651>.
- Heise L, Pallitto C, Garcia-Moreno C, Clark CJ. Measuring psychological abuse by intimate partners: constructing a cross-cultural indicator for the Sustainable Development Goals. *SSM Popul Health*. 2019;9:100377. <https://doi.org/10.1016/j.ssmph.2019.100377>.
- Fanslow J, Gulliver P, Hashemi L, Malhi 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>.
- 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; Published 2005. <https://apps.who.int/iris/handle/10665/43309>.
- Washington Group Short Set of Disability Questions. Washington Group on Disability Statistics. <https://www.washingtongroup-disability.com/>. Accessed November 3, 2016.
- Exeter DJ, Zhao J, Crengle S, Lee A, Browne M. The New Zealand Indices of Multiple Deprivation (IMD): a new suite of indicators for social and health research in Aotearoa, New Zealand. *PLoS One*. 2017;12(8):e0181260. <https://doi.org/10.1371/journal.pone.0181260>.

30. Stern E, van der Heijden I, Dunkle K. How people with disabilities experience programs to prevent intimate partner violence across four countries. *Eval Program Plann.* 2020;79:101770. <https://doi.org/10.1016/j.evalprogplan.2019.101770>.
31. 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>.
32. Hahn JW, McCormick MC, Silverman JG, Robinson EB, Koenen KC. Examining the impact of disability status on intimate partner violence victimization in a population sample. *J Interpers Violence.* 2014;29(17):3063–3085. <https://doi.org/10.1177/0886260514534527>.
33. Breiding MJ, Smith SG, Basile KC, Walters ML, Chen J, Merrick MT. Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization - National Intimate Partner and Sexual Violence Survey, United States, 2011. *MMWR Surveill Summ.* 2014;63(8):1–18. <https://www.cdc.gov/mmwr/preview/mmwrhtml/ss6308a1.htm>. Accessed September 10, 2020.
34. Valentine A, Akobirshoev I, Mitra M. Intimate partner violence among women with disabilities in Uganda. *Int J Environ Res Public Health.* 2019;16(6):947. <https://doi.org/10.3390/ijerph16060947>.
35. Hager DM. Not Inherently Vulnerable: An Examination of Paradigms, Attitudes and Systems That Enable the Abuse of Dis/Abled Women[*dissertation*]. Auckland: The University of Auckland, 2017. <https://researchspace.auckland.ac.nz/handle/2292/36826>. Accessed October 20, 2020.
36. Stats NZ. *2018 Census population and dwelling counts*. Wellington, New Zealand: Stats NZ, Published September 23, 2019. <https://www.stats.govt.nz/information-releases/2018-census-population-and-dwelling-counts>. Accessed September 15, 2020.