

# Prevalence of intimate partner violence disclosed during routine screening in a large general practice

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## ABSTRACT

**INTRODUCTION:** Domestic violence in its myriad shapes and forms is a crime affecting every level of society. Gaining a true understanding of intimate partner violence (IPV) victimology allows for the meaningful provision of intervention services.

**AIM:** To explore the prevalence of IPV disclosure during routine screening in a large general practice in provincial New Zealand.

**METHODS:** Data were collected from 13 October 2008 to 30 June 2014 from 6827 individuals screened for IPV on 10 062 occasions and were analysed relative to age, ethnicity, gender, screening outcome, screener and health centre enrolled status.

**RESULTS:** Analysis indicated an overall ever-positive disclosure rate of IPV of 11.1%, lower than New Zealand studies that place ever-positive prevalence as high as 78%. Māori women disclosed an ever-positive rate of 21.6%, Pacific women 13.2%, compared to 8.9% for NZ European/Other women. Casual patients positively disclosed in 13.7% of instances as opposed to enrolled patients in 10.5%. Disclosure of past abuse was made 1.3 times more often than that of a current abusive situation. Those aged between 16 and 65 years disclosed an ever-positive rate  $\geq 10\%$ . While nurses screened 5.5 times more patients than doctors, the doctors facilitated a higher percentage of positive disclosures than the nurses.

**DISCUSSION:** Disclosure rates from a general practice setting do not mirror those of population studies or administrative datasets due to differences in samples and data collection methods. Routine annual screening is effective, with both doctors and nurses providing support for approximately equal numbers of patients in immediate danger.

**KEYWORDS:** Disclosure; domestic violence; ethnic groups; general practice; women

## Introduction

Intimate partner violence (IPV) is a significant issue in New Zealand (NZ) and indeed throughout the world, contributing to a myriad of health and social consequences. International and national studies highlight the existence of IPV within all ages, ethnicities, religions and socioeconomic groups.<sup>1-3</sup>

Gulliver and Fanslow explored the NZ family violence (FV) data sources used to develop FV indicators, including data from the NZ Police,

court data, government social service agencies, hospital discharge data, non-government organisations (Women's Refuge, Age Concern etc.) and population-based surveys and research studies.<sup>4</sup> However, they highlight the major limitation of these sources as being specific in nature, focusing on known victim pools rather than generalised over the whole population. Interestingly, a summary of violence against NZ women comes with the proviso that the summary should not be used as an indicator of the incidence of violence against women in the population, as the figures are drawn from administrative and service

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sources dependent on reporting and recording procedures.<sup>4</sup>

The value of screening for IPV, and indeed any form of FV, in a health care setting has been the subject of debate. Some studies find it of no value, some are ambivalent, while other findings endorse such programmes.<sup>5–9</sup> The NZ Ministry of Health (MOH) *Family Violence Intervention Guidelines* asserts that screening is an essential component of health care and routine screening by clinicians is encouraged in a private face-to-face manner.<sup>10</sup> In addition, Moyer, on behalf of the United States Preventive Services Task Force (USPSTF), recently updated their recommendation related to IPV screening following a systematic review of current evidence; the Task Force now urges clinicians to routinely screen all women of childbearing age for issues of IPV.<sup>11</sup>

The screening programme investigated in the current study has been operating since October 2008 in a large NZ provincial general practice. The aim of the programme is for a clinician to screen every female attendee over the age of 16 years on an annual basis, men on suspicion of abuse and those under 16 years of age who are sexually active. Patients are screened more often if pregnant (at least two to three times during the pregnancy) or if there are suspicions of abuse without disclosure, and this can lead to multiple screening events for an individual. Screening is also advocated when women enter into a new relationship. A standard screening question was provided at annual training for staff to be able to use as a guide. Following the disclosure of current ongoing abuse, a safety assessment is applied to the individual situation, looking at the safety of the patient, any children and/or other vulnerable adults in the home. If the situation holds a high level of risk in the immediate future to any, some, or all involved, the recommended course of action is police intervention, with referral to Women's Refuge (a women's organisation for women and their children, whose aim is to help prevent and stop family violence in NZ).

The aim of this study was to explore the prevalence of IPV disclosure during routine screening in a large general practice in provincial NZ.

## WHAT GAP THIS FILLS

**What we already know:** Intimate partner violence prevalence is difficult to determine with any great accuracy for a myriad of reasons. Recent New Zealand studies suggest ever-abused rates of 35–78% for women.

**What this study adds:** Policy-based screening of all health centre attendees results in a significantly lower ever-positive rate for women compared to studies with volunteer participants. This analysis indicated an overall ever-abused disclosure rate of 11% in women attending a large general practice in provincial New Zealand and significant differences between rates of abuse relative to ethnicity.

## Methods

The design was a descriptive retrospective study of IPV disclosure from 13 October 2008 to 30 June 2014 of patients older than 15 years in a large general practice setting. The enrolled population of the general practice at the time of data extraction was 24 333 patients. Patients self-identify demographic information on practice enrolment or casual attendance.

Patients were questioned about issues relating to personal safety and current and/or historic physical, sexual or psychological abuse during a routine appointment. The recommended screening questions asked if anyone was, or had in the past, hit, punched, kicked or choked them, or forced them to have sex at a time and place they did not want. In addition, it was recommended clinicians ask about threats or disparaging comments and if they feel safe at home. A recent innovation to the programme has been the inclusion of a 1–10 scale when asking about safety at home, work, and 'out and about', with 1 being as safe as you could feel and 10 being very scared. The screening was carried out in a private area, face-to-face, in a direct manner when the patient was alone or accompanied by a child under two years of age. Following each screening event, the outcome was documented using one of five clinical indicator categories:

- Positive—immediate danger;
- Positive—not immediate danger;
- Positive—experienced in the past;
- Negative—concerns so information given; or
- Negative—no concerns.

Data were also analysed using an ‘ever-positive’ category (the sum of *Positive—immediate danger*, *Positive—not immediate danger*, *Positive—experienced in the past*).

Associations between ethnicity and screening outcome were explored. Column proportions were compared using Z-tests ( $\alpha=0.05$ ) with Bonferroni corrections applied to adjust the *p*-values for multiple testing (SPSS Statistics Version 22). The screening outcomes were subsequently grouped into positive and negative screening outcomes, while ethnicity was consolidated into Māori and Non-Māori groups in order to create a 2x2 contingency table so that an odds ratio and relative risks could be calculated, where:

$$\text{Relative Risk positive concern} = [(N \text{ positive, ethnicity1} / N \text{ ethnicity1})] / [(N \text{ positive, ethnicity2} / N \text{ ethnicity2})].$$

The relationship between age and the screening outcomes was also explored using a non-parametric correlation.

Ethical approval for the study was provided by the authors’ educational institute, as well as the general practice health centre management.

## Results

### Total screening events

There were 10 062 total screening events and, of those, 79.3% identified as NZ European/Other, 18.1% Māori and 2.5% Pacific. The target population of females over the age of 16 years totalled 10 226. Of the 10 062 screening events, 8556 patients were enrolled in the practice (35.2% of the total population and 53.5% of enrolled females) and 1506 were casual patients.

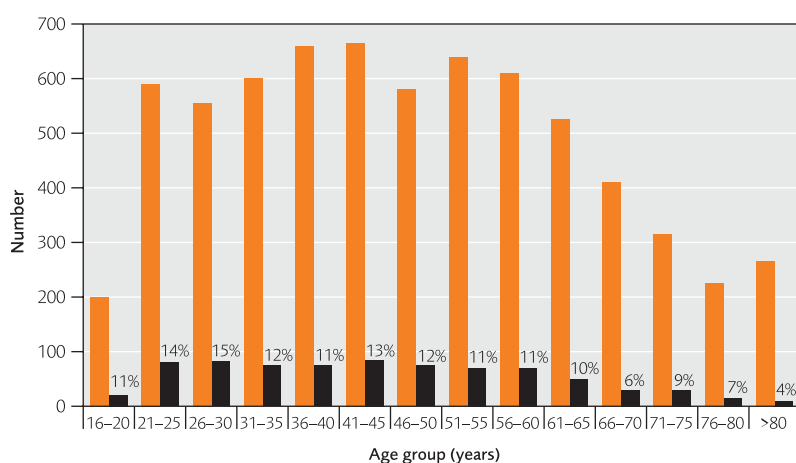
There were 8885 screening events labelled *Negative—no concerns*, 161 *Negative—concerns so information given*, and 1016 positive disclosures of abuse. Of the positive disclosures, 59% (604) were experienced in the past, 37% (373) were current but the patient was not considered to be in immediate danger, and 4% (39) were considered to be in immediate danger. The number of screening events and ever-positive disclosure by age group are shown in Figure 1. The ever-positive disclosure rate for the entire dataset was 10.1%. When ever-positive screening outcomes were examined by ethnicity, NZ European/Other reported 64.6% of the overall total, Māori 31.6% and Pacific 3.7%.

Nurses screened 5.5 times more patients than doctors and recorded 709 ever-positive responses compared to 307 for the doctors. However, as a percentage of their respective number of total screening events, doctors reported 19.8% ever-positive responses compared to 8.3% for nurses. Doctors and nurses provided support for approximately equal numbers of patients in immediate danger (9 and 8 respectively).

### Unique patient data

A unique patient count showed that 6827 individuals had been screened over the period. Within this group of patients, 81.5% self-identified as NZ European/Other, 16.3% as Māori and 2.1% as Pacific. An overall screening rate of 54% was achieved in relation to the total number of female patients enrolled with the health centre.

Figure 1. Number of screening events (orange) and number of ever-positive disclosures of intimate partner violence (black) by age group\*



\* Percentages refer to the ever-positive component by age group

Table 1. Unique patient positive screening numbers: casual versus enrolled

	Casual	Enrolled
Positive—experienced in past	7.0%	6.1%
Positive—not immediate danger	6.0%	3.9%
Positive—immediate danger	0.7%	0.5%

Table 2. Association between ethnicity and level of concern

		Ethnicity*			Total
		Māori	NZ European/Other	Pacific	
Negative—no concerns	Count	851 <sub>a</sub>	4991 <sub>b</sub>	120 <sub>a</sub>	5962
	% within ethnicity	76.3%	89.7%	83.3%	87.3%
Negative—concerns so information given	Count	24 <sub>a</sub>	81 <sub>a</sub>	5 <sub>a</sub>	110
	% within ethnicity	2.2%	1.5%	3.5%	1.6%
Positive—experienced in past	Count	118 <sub>a</sub>	302 <sub>b</sub>	7 <sub>a,b</sub>	427
	% within ethnicity	10.6%	5.4%	4.9%	6.3%
Positive—not immediate danger	Count	110 <sub>a</sub>	172 <sub>b</sub>	11 <sub>a</sub>	293
	% within ethnicity	9.9%	3.1%	7.6%	4.3%
Positive—immediate danger	Count	13 <sub>a</sub>	21 <sub>b</sub>	1 <sub>a,b</sub>	35
	% within ethnicity	1.2%	0.4%	0.7%	0.5%
Total	Count	1116	5567	144	6827
	% within ethnicity	100.0%	100.0%	100.0%	100.0%

\* Each subscript letter (a, b) denotes a subset of Ethnicity categories whose column proportions do not differ significantly from each other at the  $p < 0.05$  level (for example, in the 'Positive—immediate danger' category, Māori ('a') is significantly different from NZ European/Other ('b'), but Pacific ('a, b') does not differ from either.

Two percent of those screened were male and 18% were casual patients.

When the ever-positive rate was examined relative to unique patients (i.e. removal of multiple positive disclosures for an individual) there were 755 of 6827 patients with positive disclosures, for a rate of 11.1%. Males accounted for 17 (2.3%) of the 755 ever-positive responses. Casual patients were slightly younger than enrolled patients (42.0 vs 49.6 years) and indicated slightly higher percentages of all positive screening responses (13.7%) than enrolled patients (10.5%; see Table 1). The overall ever-positive rates for Māori, Pacific and NZ European/Other were 21.6%, 13.2% and 8.9% respectively. The overall ratio of disclosure of past positive responses to current positive responses was 1.3:1.0, although for casual patients it was 1.0:1.0.

The proportion of Māori compared to NZ European/Other (excluding Pacific) was significantly different ( $p < 0.05$ ) for each of the categories except *Negative—concerns, so information given* in which no significant difference was detected (Table 2). The proportion of Māori was approximately three times greater than that of NZ European/Other (excluding Pacific) in both the *Positive—not immediate danger* and *Positive—immediate danger*

categories and approximately double in the *Positive—experienced in past* category (Table 2). In contrast, the proportion of Māori was lower (76%) than that of NZ European/Other (90%) or Pacific (83.3%) for the *Negative—no concerns* category.

Similarly, when Pacific people were included in the non-Māori group, the proportion of Māori compared to non-Māori was significantly different ( $p < 0.05$ ) for each of the concern categories. The proportion of Māori was lower (78%) than that of non-Māori (91%) for the *Negative* categories, whereas the proportion of Māori was higher (22%) than that of non-Māori (9%) for the *Positive* categories (Table 3).

Table 3. Association between Māori and non-Māori ethnicity and concern group

			Concern group*		Total
			Positive	Negative	
Ethnicity	Māori	Count	241 <sub>a</sub>	875 <sub>b</sub>	1116
		% within ethnicity	21.5%	78.4%	11.1%
	Non-Māori	Count	514 <sub>a</sub>	5197 <sub>b</sub>	5711
		% within ethnicity	9.0%	91.0%	88.9%
Total	Count		755	6072	6827
	% within ethnicity		100.0%	100.0%	100.0%

\* Each subscript letter (a, b) denotes a subset of concern group categories whose column proportions do not differ significantly from each other at the  $p < 0.05$  level

Table 4. Risk estimates for ethnicity by concern group

	Value	95% confidence interval	
		Lower	Upper
Odds ratio for ethnicity (Māori/non-Māori)	2.785	2.352	3.297
Relative risk for positive concern	2.399	2.088	2.757
Relative risk for negative concern	0.862	0.835	0.889
N of valid cases	6827		

Table 4 shows an odds ratio of 2.8 (the odds that a positive concern outcome will occur given a particular ethnic group—Māori, compared to the odds of the outcome in the absence of that ethnic group) and that Māori were 2.4 times more likely than non-Māori to be in the *Positive* category.

An extremely weak negative correlation between age and level of concern was detected (Spearman's  $Rho$ ,  $\rho=-0.071$ ,  $p=0.001$ ), as shown in Figure 1. The percentage of Māori indicating an ever-positive response was consistently higher across age bands from 16 to 70 years of age (Table 5).

## Discussion

The data from the enrolled eligible population at the health centre shows 84% identified as NZ European/Other, 14% Māori and 2% as Pacific. The ethnic proportions of those screened are reasonably reflective of the enrolled eligible population (81.5% NZ European/Other, 16.3% Māori, and 2.1% Pacific). This is suggestive of clinicians' adopting a routine blanket screening approach as recommended by the NZ MOH rather than targeting any one ethnicity.

This study found that those aged between 36 and 45 years disclosed the highest rates of violence experience and that those aged between 16 and 65 indicated ever-positive responses  $\geq 10\%$ . This is similar to the Koziol-McLain et al.<sup>12</sup> study where the largest concentration of positive IPV screens were in those aged 16 to 39 years, followed by those in the 40 to 59 year age group. International data also shows higher disclosure rates in those aged between 20 and 44 years.<sup>2</sup> Esquivel-Santovena and Dixon<sup>1</sup> reviewed 11 United States IPV surveys, finding higher rates of IPV in students, those in a relationship and younger women.

For younger victims of IPV the impact of the NZ 'It's Not OK' television campaign launched in 2007<sup>13</sup> might be considered a catalyst to increased disclosure. The potential effectiveness of television to reach the younger demographic appears great, as the NZ MOH found at least 73% of young people watch at least an hour or more of television per day.<sup>14</sup> In a report from Renrich and Contesse<sup>15</sup> the 'It's not OK' campaign is described as aiming to eliminate domestic violence in NZ through an education campaign that is as visible as possible. They cite success, in that awareness has been lifted to the extent that this form of violence is no longer deemed 'private' and that people will now readily discuss domestic violence issues. Furthermore, the NZ Ministry of Social Development assert that police and community agency feedback since the campaign was launched indicates an increase in people seeking help and that they are seeking help earlier, before escalation.<sup>16</sup> The 'It's not OK' campaign appears to have given people permission to speak out when they may have otherwise been silent.

There were differences between ethnicities for those who have ever disclosed an experience of IPV in this study. NZ Māori disclosed significantly higher positive IPV rates than NZ Europeans/Other or Pacific patients, and were 2.4 times more likely to disclose positive IPV incidents. This is consistent with findings from the NZ study by Koziol-McLain et al.<sup>12</sup> who found NZ Māori screened positive 1.7 times more than NZ Europeans.

Casual patients had a slightly higher rate of disclosure than enrolled patients, accounting for a slightly larger percentage of *Positive—not immediate danger* situations and had a 1:1 ratio of past to current IPV disclosures. Despite exhaustive searching, no literature was found that discussed the levels of IPV among a casual or unenrolled patient population, as the inclusion criteria for most studies stated the participants must be enrolled with the practice in order to be eligible for the study. These higher disclosure rates and attendant levels of danger may be due to a perception of anonymity by the patient when attending a health centre they or family members are not enrolled with, a slightly younger casual cohort, or may be due to the screening programme at the

Table 5. Ever-positive responses by age and ethnicity

Age (years)	Non-Māori			Māori		
	No. of patients	Ever positive	Ever positive %	No. of patients	Ever positive	Ever positive %
16–20	145	14	10%	57	9	16%
21–25	431	45	10%	156	36	23%
26–30	419	52	12%	137	29	21%
31–35	493	45	9%	109	27	25%
36–40	547	49	9%	112	26	23%
41–45	551	60	11%	110	26	24%
46–50	486	47	10%	94	24	26%
51–55	533	48	9%	104	22	21%
56–60	526	44	8%	86	23	27%
61–65	458	38	8%	64	12	19%
66–70	364	21	6%	45	4	9%
71–75	287	27	9%	24	1	4%
76–80	212	13	6%	11	2	18%
>80	259	11	4%	7	0	0%
Total	5711	514		1116	241	

health centre becoming well known within the community and the casual attendances being an effort by the patient to seek help for their IPV situation.

Past abuse was disclosed 5.7 times more often than recent abuse (within the last 12 months) in the Fanslow and Robinson study<sup>17</sup> and 3.4 times more in the Koziol-McLain et al. study.<sup>12</sup> The findings from this study show a much lower ratio of past to current abuse; patients only disclosed past abuse 1.3 times more frequently. These findings suggest the screening programme may not be as effective as the population studies at facilitating disclosure of past abuse. Equally so, it may mean that patients feel that the purpose of the programme is to provide immediate support for current victims and that past abuse is not as important. In addition, some patients may have prioritised the health issue they have presented with as their main concern, deeming a past abusive situation as having been dealt with and therefore of less importance for the 15-minute consultation timeframe. This does not, however, detract from the benefits of screening, which may offer the opportunity for immediate positive intervention.

The ever-positive rate calculated from this study is a count of all individuals who disclosed an experience of violence/abuse either in the past (over 12 months ago) or currently; the rate for this study is 11.1%. This differs significantly from other NZ studies that place ever-positive prevalence at 38% and 78%.<sup>12,17</sup> It is, however, similar to results from MacMillan et al.<sup>18</sup> who found a 4.1% to 11.6% prevalence in some family practices and women's health clinics in the United States.

The doctors in this study elicited higher percentages of positive disclosure when screening than nurses. When a doctor was questioning about IPV, there was a 19.8% positive response as opposed to 8.3% when a nurse screened. This higher positive disclosure rate may be the result of GPs questioning their patients when they have suspicions rather than a routine screening approach that the nurses may have adopted. In addition, doctors elicited a much higher proportion of current abusive situations, whereas nurses elicited more responses of past abuse. This may also reflect a patient perception that doctors have more power to help than nurses (so they disclose) or that patients are more open with a doctor than a nurse.



The ever-positive IPV rate denotes an individual having been exposed at any time in their life to an episode of IPV. Other NZ-based population studies show ever-positive rates more than 30% higher than those found in this study; however, data collection processes and inclusion criteria differ greatly between population studies and screening programmes. Population studies only include data from those willing to participate, whereas these data are from a more general selection of the population.

The higher ever-positive disclosure rate for Māori compared to NZ European/Other or Pacific patients found in this study is consistent with population study results. It would be difficult to conclusively state why Māori have consistently higher disclosure rates; it may be that abuses are perpetrated more often upon women from these ethnicities, or alternatively, that the perception of IPV victims (as more often being Māori) has had a positive benefit of allowing women from this ethnic group to disclose their situations more readily. Also, while the highest ever-positive rates in this study are from Māori women, there is no information regarding the ethnicity of the perpetrator.

There was a smaller than anticipated ratio of past abuse disclosure to current abusive situations when compared to other studies. This was surprising given the high lifetime prevalence revealed in population studies. However, here again the differing data collection processes of a screening programme versus a population study may have impacted the outcome. When attending the general practice, patients had presented with a particular health issue they wished to have addressed, and they may have felt that this was of prime importance, rather than discussion of previous abusive situations. Alternatively, the ratio reported here may be a more accurate indication for the entire population.

A general practice screening programme has been shown to be effective in identifying victims of IPV and providing immediate and appropriate support for them. Disclosures in this project were influenced by a variety of factors, but these data serve to provide an additional view of IPV in NZ.

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#### COMPETING INTERESTS

None declared.

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