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#### RESEARCH ARTICLE



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# Trends in elder abuse and age discrimination during the COVID-19 pandemic in Hong Kong: Findings from a two-wave representative telephone survey study

Elsie Yan<sup>1</sup>  $\circ$  | Louis To<sup>1</sup> | Haze K. L. Ng<sup>1</sup> | Daniel W. L. Lai<sup>2</sup> | Xue Bai<sup>1</sup> | Vincent W. P Lee<sup>1</sup>

<sup>1</sup>Department of Applied Social Sciences, The Hong Kong Polytechnic University, Kowloon, China

<sup>2</sup>Faculty of Social Sciences, Hong Kong Baptist University, Hong Kong, China

#### Correspondence

Elsie Yan, Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hung Hom, Kowloon, China. Email: elsie.yan@polyu.edu.hk

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#### Abstract

**Objectives:** Empirical evidence about the heightened risks of elder abuse and age discrimination during the COVID-19 pandemic is scarce. This study aimed to track the changes in rates of both, and investigated their associated factors in the community-dwelling older population in Hong Kong.

**Methods:** In this two-wave, cross-sectional telephone survey, we interviewed a population-based sample of individuals ( $\geq$ 55 years), and captured the situation of elder abuse and age discrimination before the COVID-19 outbreak (n = 1209, Wave 1: October–December 2019) and during the pandemic (n = 891, Wave 2: December 2020–January 2021). Participants reported their experiences of different types of abuse and discrimination, financial health, subjective well-being, satisfaction with environment, health and social services, and resilience.

**Results:** Abuse was reported by 20.2% of the sample before the outbreak and 17.8% during the pandemic; while discrimination was reported by 24.6% and 29.8% at the two time points, respectively. A drop in physical abuse was observed, but it was accompanied by a rise in discrimination in the form of harassment or refusal of services. Findings of logistic regression analysis show that abuse during the pandemic was associated with younger age, poorer subjective well-being, and lower resilience; while discrimination was associated with female gender, being married, and poorer subjective well-being.

**Conclusions:** Elder abuse and discrimination were prevalent across time points. The pandemic has highlighted the marginalization of older persons in our communities. There is an urgent need for development of effective interventions to end abuse and discrimination.

#### KEYWORDS

discrimination, elder abuse, older persons, pandemic, resilience

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#### Key points

- The prevalence of elder abuse in Hong Kong dropped from 20.2% before the onset of the COVID-19 pandemic to 17.8% during the pandemic.
- Older persons with younger age, poorer well-being, and lower resilience were more likely to report elder abuse.
- The prevalence of age discrimination against older persons increased from 24.6% to 29.8% after the outbreak of the pandemic.
- Women, married individuals, and those with poorer well-being were more likely to report age discrimination.

#### 1 | INTRODUCTION

The world has been undergoing enormous changes along with the evolution of the COVID-19 since it was first reported in January 2020. The overwhelming nature and the rapid spread of the COVID-19 pandemic have imposed great challenges to older persons, who are at greater risks of morbidity and mortality.<sup>1</sup> Global statistics indicate a mortality rate of 4% in the age group of 60, a figure to be doubled in the group of 70 and fourfold in that of 80.<sup>2</sup> To contain the spread of the COVID-19 and protect the vulnerable, various nonpharmaceutical preventive measures were recommended and implemented worldwide in the early stage of the pandemic, including social distancing, stay-at-home orders, and even lockdowns. Yet, despite its effects on curtailing the spread of the disease, isolation and invisibility among older persons have been exacerbated.<sup>3</sup> Not only might the elderly be isolated from their family and friends, but they might also be deprived from the health and social services they need. These social isolation and deprivation of services can expose older persons to various short- and long-term consequences, one of which is a greater risk of violence.

Elder abuse has been framed as a serious public health concern for decades, given its potential to affect the health of a huge population in the globe and its great costs to the society.<sup>4</sup> A review of 52 studies on elder abuse from 28 countries has revealed an average prevalence of 16%,<sup>5</sup> while other research has demonstrated that elder abuse increases mortality, physical and psychological health morbidities, and care service utilisation.<sup>6</sup> Although international assessments are lacking, sources have estimated the annual costs of elder abuse to be over US\$8 billion in the U.S. and A\$5.8 billion in Australia.<sup>7,8</sup>

Preliminary evidence has pointed to an increasing trend of elder abuse during the pandemic. The World Health Organization (WHO) has reported a possible tenfold increase in elder abuse and neglect during the pandemic, and has warned the even greater risks of violence among those who are physically dependent and/or vulnerable to infections.<sup>9</sup> In line with this, a U.S. study has found a prevalence of 21% in 2021 when stay-at-home orders were imposed,<sup>10</sup> a huge leap from the overall prevalence of 10% in 2010.<sup>11</sup> Similar findings have been observed in China, where financial abuse against older persons were significantly more severe in 2021 (6%) than in 2010 (2%).<sup>12</sup>

Despite the devastating effects of elder abuse on the health and well-being of older persons, it has been noted by different researchers that elder abuse as defined by the WHO alone is not sufficient to explain the relevant public health challenges during the pandemic.<sup>13,14</sup> During the pandemic when medical and healthcare resources are in drastic shortage, older persons are at risks of facing ageism and structural abuse by the authorities, which potentially lead to devaluation of their lives and unfair treatments when compared with the young.<sup>14</sup> Ageism, an important risk factor of elder abuse and neglect,<sup>15</sup> is often the cause for individual behavior of age discrimination, which is the differentiation of individuals' value due to their specific age category. Similar to elder abuse, age discrimination has pervasive and harmful effects on the physical and mental health of older adults.<sup>16</sup> Studies have consistently reported the presence of ageism and age discrimination in health services during the pandemic based primarily on the resource allocation decisions (e.g., prioritising the allocation of intensive care and mechanical ventilators for young people in detriment to the older).17

Robust and methodologically sound assessments of elder abuse and age discrimination are essential to inform prevention and intervention efforts in protecting older persons during the COVID-19 pandemic. Although there has been speculation that the pandemic and its relevant issues could expose older persons to greater risks of abuse and discrimination, very few studies have compared the prevalence rates before and after the outbreak of the pandemic using representative community samples. Among the preliminary efforts on exploring the possible changes, most relied on the comparison with baseline data collected in other research long before the pandemic outbreak.<sup>10,12</sup> The differences in methodologies including data collection and variables measurements, as well as the possible out datedness of the baseline data, may greatly affect the accuracy and reliability of current comparison studies. Clearly, research that collects the data and compares the rates of elder abuse and age discrimination using the same methodology is needed to extend our current knowledge on the ongoing influences of the pandemic.

This study aimed to fill the research gap by comparing the data on elder abuse and age discrimination from two independent samples collected, using the same methodology, before the outbreak and during the COVID-19 pandemic in Hong Kong. This study was intended to conduct on a representative sample of communitydwelling older persons. Data collection commenced in October 2019. However, the first case of COVID-19 infection officially reported in Hong Kong appeared in January 2020 and the rapid spread of the disease in Hong Kong and cities nearby inevitably hindered the data collection procedures. The research procedures were in halt until December 2020, and data collection was resumed between December 2020 and January 2021, when the city was not undergoing any wave of the epidemic. The split of the data collection in two waves due to the influence of the pandemic has provided us an irreplaceable opportunity to observe the trends and changes in elder abuse and age discrimination in the era of the COVID-19 pandemic. Using two independent samples collected with the same methodology, this study presented and compared the prevalence rates of abuse and discrimination against community-dwelling older persons before and during the pandemic, and explored the effects of various demographic, economic, psychological, and health factors on elder abuse and age discrimination during the pandemic in Hong Kong.

### 2 | METHODS

#### 2.1 | Study design

In this two-wave community telephone survey study, we took a repeated, cross-sectional approach and analysed data of two independent samples recruited in Hong Kong at two time points: one right before the outbreak of COVID-19 pandemic (Wave 1, between October and December 2019), and one during the pandemic (Wave 2, between December 2020 and January 2021).

#### 2.2 | Participants and data collection procedures

We enroled a population-based sample of community-dwelling older persons in Hong Kong during the study. Individuals who were aged 60 years or above, able to communicate in Cantonese, and a permanent resident of Hong Kong were eligible for inclusion. Older persons were recruited through a two-phase random sampling procedure based upon telephone numbers. In phase 1, landline and mobile numbers were drawn randomly from the known prefixes assigned to different telecommunication service providers under the numbering plan of the Office of the Communications Authority, Hong Kong SAR Government. To maximise the degree of randomisation, a computer-based random digit dialling procedure was employed in the following step to generate telephone numbers for participant recruitment. Eligible older persons were approached with "cold calls" made by trained research assistants, with a close supervision of the research team. For mobile numbers, the number owners were invited to participate if they fulfiled the inclusion criteria; while for landline numbers, one individual was selected with the "next birthday" method when more than one was eligible. After explaining the research information and participation rights to the participants thoroughly, research assistants would obtain participants' verbal informed consent, and administer a structured questionnaire to

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probe responses from the participants. All study procedures and protocols, as well as research ethics, were approved by the institutional review board of the university.

In this study, we sampled and contacted over 13,700 mobile and landline telephone numbers. A total of 1483 and 947 eligible older persons were identified using the two-phase sampling procedure in Wave 1 and Wave 2, respectively. Among them, 1209 completed the survey in Wave 1 (response rate = 81.5%), and 819 in Wave 2 (response rate = 86.5%). Non-response cases were primarily consisted of refusal of participation.

#### 2.3 | Variables and measurement

Past-year elder abuse, one of our main dependent variables, weas captured using three items developed for this telephone survey: ("In the past 12 months, has there been anyone who (i) hurt you or intended to hurt you? (Physical abuse); (ii) yelled at you or hurt your feeling verbally and made you distressed? (Psychological abuse); and (iii) used or transferred your money or properties without your permission? (Financial abuse)") Participants rated how often they had experienced the abuse on a 5-point Likert scale, ranging from 0 ("never") to 4 ("always"). Similar single-item assessment tools for elder abuse have been used in previous studies,<sup>10,18</sup> and some evidence has shown no difference in the predictive validity of multiple-item and single-item assessments on elder abuse.<sup>19</sup>

Similarly, past-year age discrimination, the second dependent variable, was assessed with the other three questions developed in this study: ("In the past 12 months, how often did you feel that someone (i) disrespected or disregarded you; (ii) treated you unfairly or showed prejudice on you; and (iii) harassed you or refused to provide services to you because of your age?") Participants rated the frequency of each type of discrimination they had experienced on 1 5-point Likert scale, from 0 ("never") to 4 ("always").

We measured participants' subjective well-being using the 8item Personal Wellbeing Index, which covered eight domains of quality of life (e.g., standard of living, personal health, community connectedness, etc.).<sup>20</sup> A 11-point Likert scale was used, ranging from 0 ("strongly dissatisfied") to 10 ("strongly satisfied").

We developed a 9-item checklist to assess older persons' satisfaction with the environment and services. The checklist covered various aspects of the macro environment, daily life, and health and welfare services provision. Principal component analysis showed a two-factor solution, namely "satisfaction with the socio-economicpolitical environment and "satisfaction with health and social services. Participants responded to each of these items on an 11-point Likert scale, from 0 ("strongly dissatisfied") to 10 ("strongly satisfied").

Resilience was measured with the use of the 2-item Connor-Davidson Resilience Scale,<sup>21</sup> where participants rated the items on a 5-point Likert scale, ranging from 0 ("never") to 4 ("always").

Other variables assessed included participants' gender, age, marital status, and highest education attainment. Self-perceived

financial health status was also measured with an item rated on a 5-point Likert scale, from 1 ("very poor") to 5 ("very good").

#### 2.4 | Statistical analysis

We used descriptive statistics to summarise older adults' demographic and economic characteristics. To ensure the representativeness of the findings, the raw population-based data collected were rim-weighted based on the latest distribution of age, gender, and education attainment of Hong Kong residents aged 55 years or above.<sup>22</sup> Prevalence of elder abuse and age discrimination in the two waves were calculated based on participants' responses on the six items. Prevalence rates in Wave 1 and Wave 2 were compared using chi-square tests. To explore the effects of different variables on elder abuse and age discrimination during the pandemic, we conducted multiple logistic regression analyses. The dependent variables of the two regression models were abuse and discrimination in Wave 2 respectively, while the independent variables included gender, age, marital status, education attainment, perceived financial health, subjective well-being, satisfaction with environment and services, and resilience. All missing data were handled with pairwise deletion.

#### 2.5 | Role of the funding source

The funder of the study had no role in study design, data collection, data analysis, data interpretation, or writing of the report.

### 3 | RESULTS

Demographic characteristics of the two independent samples  $(n_1 = 1209, n_2 = 819)$  were similar (Table 1): A majority of them were female, almost half were older than 65 years of age, and about two thirds were married. The samples also shared similarities in their self-perceived financial health, where over 90% of them found their financial condition average to very good.

About 20.2% and 17.8% of the older persons in Wave 1 and Wave 2, respectively, had experienced elder abuse in the year preceding the survey (Table 2); and among those victims, most reported being psychologically abused (Wave 1 = 19.4%, Wave 2 = 17.0%). Comparatively, physical abuse and financial abuse were more rarely reported, that only 2.2% (Wave 1) and 0.7% disclosed an experience of the former and 1.0% (Wave 1) and 1.1% (Wave 2) the latter. The rates of elder abuse did not differ between the samples, except for physical abuse. A smaller proportion of older persons reported physical abuse in Wave 2 than in Wave 1 ( $\chi^2 = 6.68$ , p < 0.01).

Age discrimination, on the other hand, was reported by 24.6% and 29.8% of older persons in Wave 1 and Wave 2, respectively (Table 2). Approximately two fifths had felt disrespected or disregarded by other due to their age, and about one in every 11 of

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#### TABLE 1 Demographic characteristics of the participants.

		-	
	n (%)		
	Wave 1 (n = 1209)	Wave 2 (n = 819)	
Gender			
Female	910 (75.3%)	588 (71.8%)	
Male	299 (24.7%)	231 (28.2%)	
Age			
55-64 years	675 (55.8%)	437 (53.4%)	
65 years or above	531 (43.9%)	373 (45.5%)	
Missing	3 (0.3%)	9 (1.1%)	
Marital status			
Married	736 (60.9%)	571 (69.7%)	
Single, divorced, or widowed	466 (38.5%)	237 (29.0%)	
Missing	7 (0.6%)	11 (1.3%)	
Education attainment			
Illiterate	57 (4.7%)	40 (4.9%)	
Primary (incomplete)	148 (12.2%)	66 (8.0%)	
Primary	157 (13.0%)	84 (10.3%)	
Secondary (incomplete)	239 (19.8%)	128 (15.6%)	
Secondary	354 (29.3%)	314 (38.4%)	
Diploma or certificate	89 (7.4%)	61 (7.4%)	
University, or other tertiary institution	122 (10.1%)	83 (10.1%)	
Postgraduate	43 (3.5%)	33 (4.1%)	
Missing	0 (0)	11 (1.3%)	
Perceived financial health			
Very poor	20 (1.7%)	24 (2.9%)	
Poor	58 (4.8%)	20 (2.4%)	
Average	743 (61.5%)	493 (60.2%)	
Good	327 (27.0%)	221 (27.0%)	
Very good	55 (4.5%)	37 (4.5%)	
Missing	6 (0.5%)	24 (3.0%)	

them were treated unfairly. Harassment or refusal of service because of age were experienced by 16.8% of older persons in Wave 1 and 23.3% in Wave 2, and a significant difference was observed between waves ( $\chi^2 = 11.05$ , p < 0.001). A similar between-wave difference was also found in the overall rates of age discrimination, that older persons in Wave 2 reported were more likely to report such experience than their counterparts in Wave 1 ( $\chi^2 = 6.18$ , p = 0.01).

When other factors were adjusted for, younger age, poorer subjective well-being, and lower levels of resilience were significantly associated with greater odds of elder abuse during the COVID-19 pandemic (Table 3). Low levels of satisfaction with health and social services were once associated with elder abuse, but the effect

# **TABLE 2**Prevalence of elder abuseand age discrimination in the past year.

	n (%)			
	Wave 1 ( <i>n</i> = 1209)	Wave 2 (n = 819)	χ²	p-value
Elder abuse				
Any abuse	243 (20.2%)	144 (17.8%)	1.71	0.19
Physical abuse	27 (2.2%)	6 (0.7%)	6.68	<0.01
Psychological abuse	233 (19.4%)	136 (17.0%)	2.07	0.15
Financial abuse	12 (1.0%)	9 (1.1%)	0.06	0.80
Age discrimination				
Any discrimination	296 (24.7%)	199 (29.8%)	6.18	0.01
Disrespect or disregard	230 (19.2%)	124 (19.1%)	0.02	0.88
Unfair treatment	112 (9.3%)	56 (8.6%)	0.30	0.58
Harassment or refusal of services	201 (16.8%)	153 (23.3%)	11.05	<0.001

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TABLE 3	Results of multiple	logistic regression	for elder abuse and	l age discrimination.

	Odds ratio (95% confidence interval)			
	Elder abuse		Age discrimination	
	Crude	Adjusted	Crude	Adjusted
Gender (female) <sup>a</sup>	0.80 (0.54-1.17)	0.80 (0.52-1.23)	1.17 (0.82–1.68)	1.82**(1.19-2.79)
Age (55–64 years) <sup>a</sup>	2.02*** (1.38-2.96)	2.32*** (1.46-3.68)	1.69** (1.21-2.34)	1.36 (0.91–2.05)
Marital status (married) <sup>a</sup>	0.90 (0.69–1.53)	0.83 (0.53-1.29)	2.25*** (1.51-3.35)	2.04*** (1.90-4.84)
Education attainment	1.18** (1.06-1.32)	1.17 (1.01–1.35)	1.06 (0.96–1.17)	0.99 (0.87-1.12)
Perceived financial health	0.82 (0.64–1.05)	0.87 (0.64–1.17)	1.06 (0.85–1.33)	1.18 (0.90–1.56)
Subjective well-being	0.78*** (0.68–0.88)	0.76** (0.63–0.93)	0.77*** (0.69–0.87)	0.72*** (0.60-0.86)
Satisfaction with environment	0.92 (0.84-1.00)	1.02 (0.90-1.16)	0.93* (0.86-1.00)	1.03 (0.92–1.15)
Satisfaction with health and social services	0.87** (0.78–0.96)	1.10 (0.93–1.30)	0.82*** (0.74-0.90)	0.91 (0.79-1.05)
Resilience	0.71*** (0.58–0.87)	0.70** (0.55–0.99)	0.83 (0.70–0.99)	0.88 (0.71-1.07)
Cox & Snell R <sup>2</sup>		0.06		0.09
Nagelkerke R <sup>2</sup>		0.11		0.13

<sup>a</sup>Referent groups: Gender (Male); age (65 years or above); marital status (Single, divorced, or widowed).

 $^{*}p < 0.05; \, ^{**}p < 0.01; \, ^{***}p < 0.001.$ 

became non-significant after the adjustment of other variables. In contrast, female gender, a status of being married, and poorer subjective well-being were associated with greater odds of age discrimination during the pandemic. When other variables were controlled for, the once significant associations between age discrimination and age, satisfaction with the environment, satisfaction with health and social services, and resilience disappeared.

#### 4 | DISCUSSION

Our data indicate a high prevalence of elder abuse and age discrimination in Hong Kong, both before and during the COVID-19 pandemic. We observed rates of elder abuse at 20.2% before the outbreak and 17.8% during the pandemic, which are both higher than

the pooled prevalence of 15.7% in a meta-analysis,<sup>5</sup> and the prevalence of 5.2% in an Indian study using similar single-item measures before the onset of the pandemic. Age discrimination appeared in 24.6% of older persons before the pandemic and 29.8% during the pandemic, which are comparable to previous estimates of 29%–35% in a recent review.<sup>23</sup>

Our findings are divergent from previous research by noting a possible reduction in the rates physical elder abuse after the onset of the pandemic.<sup>9,10</sup> The divergence between previous studies which observed a rise in elder abuse and our findings might, inevitably, reflect the influences of the use of different methodologies (e.g., single-item measures vs. multiple-item measures; telephone surveys vs. face-to-face interviews; etc.); yet, we should never deny the possibility of an actual decrease in elder abuse incidents in certain populations and environments. Although it has been speculated that

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social distancing measures and lockdowns may have forced older persons to stay home with perpetrators of abuse and thus put them at greater risks,<sup>9</sup> this may not have been the situation in Hong Kong. Probably due to the limited size of the housing available in the city, many older persons do not live with their adult offspring. According to the data from the Census and Statistics Department,<sup>22</sup> fewer than half of the older population were living with their children while more than one in every eight was residing alone. For those victims who do not live with an abusive family member, social distancing measures may reduce their chance of face-to-face contact with the perpetrators, thus protecting them from potential physical abuse during the pandemic. A 2021 study in the Hunan province. China has demonstrated supportive evidence to this claim.<sup>12</sup> The authors observed a drop in physical and emotional abuse against the elderly when the communities and villages had adopted closure measures to eliminate physical contacts with people living outside. In addition to the limited physical contacts between the perpetrators and the victims, a reduction in physical abuse might also be possible when the presence of non-abusive family members, who were also advised by the government to stay at home, served as strong informal social controls to minimize family violence.24

Greater proportions of older persons experienced age discrimination after the outbreak of the pandemic. In particular, the rate of harassment and refusal of services due to old age increased from 16.8% to 23.3%, reflecting a worrying phenomenon. Consistent with our finding, a recent review of 21 studies from European countries and the United States has confirmed ageism in health services delivery during the pandemic.<sup>23</sup> Currently, some strategies adopted in the healthcare system in various countries are accused to misguidedly use age as a criterion which disfavours older persons in service delivery and resource allocation decisions.<sup>25</sup> When COVID-19 is overwhelming the intensive care services, mechanical ventilators, and other medical facilities, the ethically worrisome age cutoff has sometimes been adopted in making medical decisions.<sup>26</sup> In some countries, it has even been suggested that older generations are less valuable and more vulnerable to infections and deaths, and thus should sacrifice their lives in order to save the future generations and to reduce the economic costs of the pandemic.<sup>27</sup> This study adds to the literature by showing a similar trend in the service provision in the Asian population. When resources are limited and health and social services are insufficient, older persons, who are discriminated by structural ageism, can be the most systemically affected and disadvantaged.

This study provides preliminary evidence supporting the potential roles played by subjective well-being in elder abuse and age discrimination. Subjective well-being can be linked with good interpersonal relationships,<sup>28</sup> an important protective factor of elder abuse. Findings from a study on partner violence may provide some insights on the significance of promoting subjective well-being to end future violence victimisation.<sup>29</sup> In that study, women with moderate or high subjective well-being were more likely to have left their abusive relationship and to report greater self-mastery. Applying to the older populations, promoting subjective well-being may empower 0991166, 2023, 4, Downloaded

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them to seek help when abuse or discrimination occurs and to stop future victimization.

Our findings also shed lights on the importance of resilience in protecting older persons from elder abuse. Resilience refers to one's regenerative capacity to maintain healthy functioning in the face of disruptive and adverse events in life, and is an internal resource for individuals to mitigate stress, face challenges, and cope with problems. It may enable older persons to adapt to life changes and support healthy and safe ageing.<sup>30</sup> In a recent randomized controlled pilot study, older persons were assisted in an intervention programme to build late-life resilience.<sup>31</sup> The study has revealed preliminary findings that promoting resilience might help reduce elder abuse in certain situations. This study provides supportive evidence for the link between resilience and reduced elder abuse, which is particularly useful for practitioners as preventive work could also begin by helping older persons to strengthen their resilience.

Increased risk of discrimination was also associated with female gender and being married. Despite the growing gender equality in Hong Kong, many of the household tasks continue to be shouldered by women. This is especially true for older women, who have enjoyed fewer opportunities than younger cohorts to receive an education and to work for an income. While the pandemic has impacted global supply chains, supplies of food, daily necessities, and hygienic products have been unstable during the various waves of the pandemic. Given shortages of resources and the marginalized position of older persons, running daily errands might increase the risk of older women being discriminated.

This study has several limitations. First, the analysis of changes was based on two cross-sectional surveys instead of one longitudinal study. Findings can possibly be confounded by individual differences between the two independent samples. However, we have taken every measure to minimize the confounding variables between samples. Although current data did not allow comparisons over time at an individual level, our findings undoubtedly provide evidence on changes at an aggregate level. Second, the use of telephone surveys might have excluded older persons with cognitive or hearing impairments. Exclusion of these groups, who are often regarded as more vulnerable to elder abuse and discrimination, might have lowered the reported rates in this study. Furthermore, the use of telephone survey might facilitate underreporting during the pandemic when the victimized older persons were reluctant to report their experience in the presence of the perpetrators who were staying at home during the survey. Yet, other data collection methods might not have done better than telephone surveys in the older populations during the pandemic when direct contacts should be minimized. Another limitation concerns the reliability and accuracy of the selfreports for elder abuse used in this study. Underreporting might appear as older respondents might possibly suffer from various degrees of cognitive impairment. However, a recent systematic review noted that self-reports, when compared to sole face-to-face professional interviews, may be preferrable as it could minimise non-disclosure due to shame or fear.<sup>32</sup> To enhance validity and reliability, future research may employ data triangulation which

involves both self-reports and professional observations or interviews. Finally, the use of single items to capture each type of elder abuse and age discrimination might cause certain validity issues that limited the generalisability of the findings. Although evidence has been supportive for the validity of using single items in large-scale surveys,<sup>33</sup> future research may employ validated scales to measure those variables to maximise the generalizability and replicability of the findings.

Using the data from two representative community samples surveyed with identical methodology, this study adds to the larger literature by comparing the rates of elder abuse and age discrimination right before the outbreak and during the pandemic. Despite the reduction of physical elder abuse, the high prevalence of abuse and discrimination and the sharp increase of harassment and refusal to services experienced by older persons during the pandemic unquestionably warrant timely and effective interventions to protect victims from further violence. Overall, the findings lead us to conclude that the care to be provided to older persons during the pandemic should not overshadow the parallel need for effective measures to end abuse and discrimination. Our findings that resilience and subjective well-being may serve as protective factors for elder abuse and age discrimination could inform the development of relevant interventions. Future elderly protection policies and practices should aim to include the special needs of older persons, as well as to ensure that no older person is unfairly treated in the healthcare settings when the threat to everyone's life is indiscriminate during the pandemic.

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#### CONFLICT OF INTEREST STATEMENT

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

#### ORCID

Elsie Yan 🕩 https://orcid.org/0000-0002-0604-6259

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