

The Impact of Anti-Fugitive Offenders Ordinance Protests on the Mental Health in the Hong Kong General Public

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ABSTRACT

We examined the prevalence and predictors of mental distress following the Anti-Fugitive Offenders Ordinance Protests in Hong Kong (start from June 09, 2019). A population-representative sample of 1,206 citizens (mean age = 43.19 years; 51% female) was recruited immediately after the protest by stratified probability sampling. Respondents reported sociodemographics, anxiety symptoms (STAI), depressive symptoms (CES-D), and negative affect (CAS-NA). We found alarming post-protest prevalence of severe probable depression of 10.2% (CES-D >21 among 1206 respondents) and 33.4% of mild to moderate levels of anxiety symptoms (STAI ranged from 41-50). Multivariable regressions revealed that younger age, currently being unmarried, primary education level or below, and monthly household income less than HK\$10,000 were positively associated with higher odd of depressive symptoms, anxiety symptoms, and negative affect. These findings indirectly reflect the protest's potential negative impact on population mental health. It also implied that political/ social movement has greater negative impact on the mental health for individuals with lower level of preexisting socioeconomic resources. Political protests should be given more attention and be taken into account in population-based mental health promotion.

Keywords: *Anti-Fugitive Offenders Ordinance; psychological distress; mental health; political movements; Hong Kong*

The Fugitive Offenders Ordinance has become the public attention since the case of a young Hong Kong woman disappeared in Taiwan in February 2018. Taiwanese authorities suspected her boyfriend have killed her and sought his return to Taiwan to face murder charges. But there are no general provisions for the transfer of criminal suspects between Hong Kong and Taiwan. Thus, the government has proposed amendments to the Fugitive Offenders Ordinance, which would apply to all legal jurisdictions that do not at present have a full-scale cooperation agreement with Hong Kong.

However according to a public opinion poll conducted by the University of Hong Kong (2019), it shows that the largest proportion of citizens opposed to this amendment. It is also interesting that both the supporters of the pan-democrats, the moderates and those without any political allegiance also demonstrated a clear opposition stand on the amendment.

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Received: August 10, 2019; Revision Received: September 29, 2019; Accepted: September 30, 2019

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Although the government later proposed six extra measures for protection in order to address public concern, the controversy over the Fugitive Offenders Ordinance remains intense.

The Fugitive Offenders Ordinance has finally triggered a large scale protests on the 9 June 2019. There are also many large-scale protests have been occurred subsequently in Hong Kong in June. An estimated over one million of the 7.2 million citizens have reportedly participated in the related protests (Young Post, 2019). The Anti-Fugitive Offenders Ordinance Protests was the largest scale social movement in Hong Kong since the Umbrella Movement in 2014 (Chan, 2014). There were violent clashes between protesters and the police outside the Central Government Offices and Hong Kong Police Headquarters, some of which involved pepper sprays. There is also another round of more severe and massive battles broke out across the areas surrounding the Legislative Council Complex on the 1 July 2019. These clashes resulted in a cumulative of at least 100 injuries that required emergency room visits (HKFP, 2019).

The Anti-Fugitive Offenders Ordinance Protest showed that Hong Kong people's political apathy has been replaced by participatory culture and collective action (Ortmann, 2015). People opposed the ordinance because they foresaw a threat to abolish the rule of law and deprive individual freedom. They oppose extending the transfer of fugitives to the mainland since they are extremely worried that this new proposed extradition arrangement may lower the judicial barrier under our 'one country, two systems' principle (Chan & Chong, 2019). They also worried the change could open a floodgate of requests to hand over fugitives to the mainland and jeopardize Hong Kong's status as financial and legal hub. In addition, the three-week consultation period that followed seems remarkably short for such a major piece of legislation (HKFP, 2019).

Socioeconomic Resources and Mental Health

According to the conservation of resources theory, resources are the important elements in the process of adaptation to stress (Hobfoll, 2012). Resources consist of entities that are possessed by the self and embedded within the physical environment. It included the sense of control over one's life and preexisting socioeconomic resources (e.g. income and education). In the case of Hong Kong, people participated into the protest because they foresaw threat of resource loss including lower the judicial barrier under our 'one country, two systems' principle and deprivation of freedom (Chan & Chong, 2019). Use of tear gas and pepper spray, physical assaults to suppress the protestors, and cases of selective law enforcement further heightened people's perceived threat of potential political oppression if there are Fugitive Offenders Ordinance in the future. By the investment of resources, protest could create passageways that strive for individual rights and freedom among some Hong Kong citizens (Hobfoll, 2012). However, the protest itself may also have the power of depleting their personal resources, which has significant impact on the citizens' mental states. Therefore the Anti-Fugitive Offenders Ordinance Protest in Hong Kong provides an opportunity to investigate how the mass socio-political protest affects population mental health.

Some similar social movements have occurred in different countries over the world. However, only few studies have investigated the association between the social movements and the citizens' mental health. For example, Tremblay, Pedersen, and Errazuriz (2009)

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found that the degree of exposure to sustained political violence was strongly associated with PTSD-related symptoms and psychological disorders among the people exposed to long-lasting forms of political violence between 1980s and 1990s in Peru. Among those who were exposed to the Arab Spring revolution in Egypt, the group who suffered from physical trauma primarily as a result of injuries incurred from the revolution showed greater psychological distress compared to those who suffered from physical trauma incurred from other causes (Papanikolaou et al., 2013). These studies clearly suggested that social movements in general negatively impact the population mental health.

However, these movements or conflicts mentioned in the above studies involved serious and long lasting conflicts, and hence their negative effects might be different from those of the milder ones (i.e. Anti-Fugitive Offenders Ordinance Protest in the current study). Few previous studies that investigated the impact of umbrella movement on the mental health of Hong Kong's general population may provide some indirect evidence to us. For example, Hou et al. (2015) found that the prevalence of anxiety/depressive symptoms among the public was higher than normal after the umbrella movement. And perceived personal/ social resource losses due to the movement were associated with the anxiety/depressive symptoms. Although this study provided a good insight on the association between the social movements and the citizens' mental health, it may have two major issues. First, it did not include any factors related to personal experiences of the movement of participants. Second, it was conducted about 1.5–2 months after the movement ended. The lag period might have influenced the mental states of the general population.

The Present Study

The current study aims to (1) investigate mental health following social/political movement in Hong Kong (2) how the socio-demographics factors and personal participation in the movement associated with mental health variables. The goals of this study were to describe the prevalence of anxiety and depressive symptoms and negative emotions, and investigate the associations of preexisting socioeconomic resources with anxiety and depressive symptoms and negative emotions during the immediate period following the Anti-Fugitive Offenders Ordinance Protests in Hong Kong.

METHODOLOGY

Study design and data collection

A cross-sectional population-based survey was conducted during June 17- July 24, 2019 (the major protest started from 9 June 2019 and still continues) by stratified probability sampling from a database representative of the population (Census and Statistics Department, 2011) upon obtaining the written consent from respondents. Inclusion criteria were (1) Chinese ethnicity, (2) Cantonese fluency (the most commonly spoken Chinese language and the mother tongue of 90% of the population in Hong Kong), and (3) elementary education level or above. Individuals with histories of psychiatric conditions and presence of cognitive impairments were excluded from the study.

Measures

Sociodemographic characteristics. A standardized proforma was used to obtain demographic information including age in years, sex, marital status (i.e., unmarried, married/cohabited, divorced/separated, widowed), education level (primary level or below, secondary, tertiary or

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above), employment status (full-time employment, part-time employment, unemployed, and retired), and monthly household income (= <HK\$10,000, HK\$10,001-\$20,000, HK\$20,003-\$30,000, HK\$30,001-\$40,000, and \geq HK\$40,000).

Anxiety. Anxiety level was measured by Spielberger's State-Trait Anxiety Inventory (STAI; Spielberger, Jacobs, Russell, & Crane, 1983). It is a self-report assessment device conceptualized as a psychological instrument for the study of anxiety in adults, which includes measures of state and trait anxiety based on a 4-point Likert scale ("1" = Not at all, "2" = A little "3" = Somewhat, "4" = Very Much So). Only the part measure state anxiety was used. Scores range from 20 to 80 and the higher scores are positively correlated with higher levels of anxiety. The usual cutoff to indicate "clinical anxiety" is 40. Cronbach's Alpha was .95 for the current study.

Depression. Depressive symptoms were assessed with the 20-item Center for Epidemiologic Studies-Depression (CES-D) scale (Radloff, 1977). It can be used to measure the extent of depressive attitudes and behaviors in an individual in a range of different populations. The CES-D consists of 20 symptoms rated on a 4-point scale in terms of frequency of occurrence during the past week based on a 4-point Likert scale ("1" = rarely or none of the time (< 1 day), "2" = some or a little of the time (1-2 days), "3" = occasionally or a moderate amount of the time (3-4 days), "4" = most or all of the time (5-7 days)). Scores range from 0 to 60 and the higher scores are positively correlated with higher levels of depression. Scores less than 15 categorized as no depression, scores between 15 and 21 categorized as mild to moderate depression, and scores over 21 categorized as severe depression. Cronbach's Alpha was .92 for the current study.

Negative Affect. The 6-item Chinese Affect Scale – Negative affect (CAS-NA; Hamid & Cheng, 1996) assessed negative affect was used. Participants rated the frequency of 6 negative affect items on a 5-point scale (1= not at all, 5=all the time). Summation scores were calculated for the overall NA (range = 6–30). Cronbach's Alpha was .95 for the current study.

Protest personal participation. Participants reported any personal participation in the protest (Yes/ No).

Statistical analysis

The analysis was divided into two major parts. First, the associations between socio-demographics variables and three continuous dependent variables (i.e., STAI, CES-D, and CAS-NA) were tested by independent sample t test and one-way ANOVA. Second, multivariable regression were conducted to investigate the associations between the significant socio-demographics variables and three continuous dependent variables.

In all regression models, marital status (1=unmarried, 2=married) and education level (1=primary education or below, 2=secondary education, and 3=tertiary education) were recoded. Based on the median household income of HK\$23,800 (Census and Statistics Department, 2015), income level was recoded into 1= <HK\$10,000, 2= HK\$10,001-\$20,000, 3= HK\$20,003-\$30,000, 4= HK\$30,001-\$40,000, and 5= \geq HK\$40,000. All analyses were performed using SPSS (Version 21; SPSS Inc., Chicago, IL).

RESULTS

Descriptive statistics

Participants' socio-demographics are presented in Table 1. The 1,206 respondents ranged in age between 18 and 70 years ($M=43.19$, $SD=14.53$); 614 (50.9%) were female and 691 (57.3%) were married. Eleven (1%) respondents reported receiving primary education or below, 569 (47.2%) secondary education, and 626 (51.9%) tertiary education or above. A total of 955 (79.2%) reported full-time employment, 68 (5.6%) a part-time employment, 18 (1.5%) being unemployed, and retired ($n=165$; 13.7%). One hundred fifteen (9.5%) reported an average monthly household income less than HK\$10,000, 265 (22.0%) reported \$10,001–\$20,000, 286 (23.7%) reported \$20,001–\$30,000, 269 (22.3%) reported \$30,001–\$40,000, and 271 (22.5%) reported an income exceeding \$40,000 (US\$1≈HK\$7.80). A total of 485 (40.2%) reported they have personally participated in the protest.

Predicting mental health variables

Four of the studied socio-demographics factors (younger age, currently being unmarried, primary education level or below, and monthly household income less than HK\$10,000) were positively associated with higher level of depressive symptoms, anxiety symptoms, and negative affect (Table 2). On the other hand, there are no significant difference on the three continuous dependent variables between different gender, employment status, and whether participant in protest or not.

The results of the multivariable regression analyses are summarized in Table 3. Depressive symptoms, anxiety symptoms, and negative affect were 25%, 17%, and 8% lower with every one year increase in age ($aOR=.75-.90$, 95% $CI=.71, .94$, $p<.001$). Respondents who were unmarried reported 1196% ($aOR=12.96$, 95% $CI=2.86, 58.73$, $p<.01$), 468% ($aOR=5.68$, 95% $CI=1.93, 16.67$, $p<.01$), and 145% ($aOR=2.45$, 95% $CI=1.32, 4.55$, $p<.01$) higher depressive symptoms, anxiety symptoms, and negative affect, respectively.

Respondents with primary education level reported 872% ($aOR=9.72$, 95% $CI=6.15, 13.28$, $p<.001$), 617% ($aOR=7.17$, 95% $CI=5.32, 9.01$, $p<.001$), and 379% ($aOR=4.79$, 95% $CI=2.85, 6.73$, $p<.01$) higher depressive symptoms, anxiety symptoms, and negative affect, respectively. Respondents with monthly household income less than HK\$10,000 reported 776% ($aOR=8.76$, 95% $CI=6.57, 10.96$, $p<.001$), 490% ($aOR=5.90$, 95% $CI=4.35, 7.45$, $p<.001$), and 262% ($aOR=3.62$, 95% $CI=2.74, 4.50$, $p<.001$) higher depressive symptoms, anxiety symptoms, and negative affect, respectively.

DISCUSSION

Social or political movement may contribute to poorer mental and physical health, but relatively fewer studies to date have reported the impact of political movements on psychological health. The Anti-Fugitive Offenders Ordinance Protest was doubtlessly a large scale, territory-wide, and influential socio-political movement. Intensity of participation was high as it is estimated that more than one million of Hong Kong citizens had personally participated in the movement (Young Post, 2019). Almost everyone in Hong Kong was affected in some major way during the movement period, and hence the protest's impact on population mental health is expected.

Immediately after the Anti-Fugitive Offenders Ordinance Protest in Hong Kong, we found post-protest prevalence of severe probable depression of 10.2% (CES-D >21 among 1206

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respondents). Without baseline data, we cannot ascertain any actual change in prevalence of depression in the population due to the protest. Nevertheless, we also found alarming post-protest prevalence of 33.4% of mild to moderate levels of anxiety symptoms (STAI ranged from 41-50 among 1206 respondents). These findings indirectly reflect the protest's potential negative impact on population mental health.

This study found that primary education or below, lower household income, and being unmarried were also positively associated with the odds of higher anxiety symptoms, depressive symptoms and negative affect. Consistent to the conservation of resources theory, these findings implied that political/ social movement has greater negative impact on the mental health for individuals with lower level of preexisting socioeconomic resources (Mai, Xiong, & He, 2015). These individuals felt more anxious about their social or economic resource loss such as loss of adequate income, financial assets, and family stability since the start of the protest (Elhai, Hall, & Erwin, 2018). Our findings showed that preexisting socioeconomic resources are important predictors of mental health outcomes following potentially traumatic events including political movement.

The findings extend the well-established link between socioeconomic status and mental health to the social movement (Dowd et al., 2010). In milder cases of political movements, longstanding socioeconomic resources could have a stronger association with mental and physical health. For example, Hall and his colleagues (2014) found that social resource loss was associated with higher level of depression. They further proposed that recovery from depressed mood could depend heavily on prevention of social resource loss or restoration of lost social connections following political movement. Therefore preexisting socioeconomic resources may intensify concerns about long-term political tension, and in turn worsen one's mental health.

Moreover, this study also showed that younger age was associated with the odds of higher anxiety symptoms, depressive symptoms and negative affect. More specifically, we found alarming post-protest prevalence of 79.4% of mild to moderate levels of anxiety symptoms among respondents who are between 18-30 years old. This finding seems contradict to previous studies which suggested that youths typically demonstrate less depressive and general anxiety disorders and symptoms than middle aged adults (Allen, Balfour, Bell, & Marmot, 2014; Ferrari et al., 2013). The proposed reason is older adults are required to encounter the stress both from the family and work. Such findings coincide with the fact that the Anti-Fugitive Offenders Ordinance Protest was mainly led by young adults and university students (Tai, 2018). Younger people were more actively participated and involved in the protest, and they might have been more emotionally involved and prone to developing conflicts with family members. On the other hand, older adults take times to accumulate enough socioeconomic resources within the local setting (Hoi, Chen, Zhou, Sou, & Hall, 2015), which were not easily shaken by the Anti-Fugitive Offenders Ordinance Protest. The negative association between age and mental health in the current study suggests that plausible post-protest changes in potential risk factors of psychological problems among Hong Kong adults.

LIMITATIONS AND CONCLUSION

Several limitations in the current study should be noted. First, because this study was cross-sectional in nature, no baseline data was assessed. Thus, we could not know the exact

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magnitude of the negative impact of protest on population mental health. We also cannot determine causality from the associations between preexisting socioeconomic resources and outcome mental health variables. Second, the survey relied on self-reports. Response bias and social desirability might influence respondents' answers and discount data. Lastly, the non-response rate during data collection may have introduced selection bias.

Notwithstanding the above limitations, this study provides an evidence base for future studies on psychological impact of social movement in Hong Kong or elsewhere in the world. We found that there are associations of preexisting socioeconomic resources with anxiety and depressive symptoms and negative affect during the immediate period following the Anti-Fugitive Offenders Ordinance Protests. Thus, lasting political disputes could potentially become a structural stressor in the general population. Political protests should be given more attention and be taken into account in population-based mental health promotion. Political pessimism is not unique to Hong Kong but is common across the world as mass political movements are emerging in many countries. It is warranted to study its global impact as a structural factor on population mental health.

This study also found that younger adults have poorer mental health states than older adults. Our findings also support individual, inter-personal and structural factors were found to be significantly associated with mental health distress. It is warranted to disseminate our findings to politicians, as well as health workers and the general public, especially the mental health of young adults. Last but not least, politicians need to realize that they are important stakeholders of the general public's mental health.

Ethical Compliance Statement

Funding: Nil

Compliance with Ethical Standards: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent: Informed consent was obtained from all individual participants included in the study.

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Acknowledgements

The author appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author declared no conflict of interests.

How to cite this article: Tsz. W.M (2019). The Impact of Anti-Fugitive Offenders Ordinance Protests on the Mental Health in the Hong Kong General Public. *International Journal of Indian Psychology*, 7(3), 610-620. DIP:18.01.066/20190703, DOI:10.25215/0703.066

Table 1. Sociodemographic of the participants.

Number of participants	1206
Mean age (<i>SD</i>)	43.19 (14.53)
Range	18-70
Sex (female)	614
Marital status	
Unmarried	515
Married	691
Education level	
Primary education or below	11
Secondary education	569
Tertiary education or above	626
Employment status	
Full-time employed	955
Part-time employed	68
Unemployed	18
Retired	165
Monthly household income	
≤ HKD10000	115
HKD10001-20000	265
HKD20001-30000	286
HKD30001-40000	269
≥ HKD40001	271
Participant or not	
Did not participate	721
Have participated	485
Mean Level of Anxiety Symptoms (<i>SD</i>)	39.96 (12.24)
Mean Level of Depression Symptoms (<i>SD</i>)	10.76 (8.57)
Mean Level of Negative Affect (<i>SD</i>)	13.12 (4.81)

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Table 2 Associations between background factors and the three mental distress variables

Predictor	Anxiety symptoms		Depressive symptoms		Negative Affect	
	Mean (SD)	p value	Mean (SD)	p value	Mean (SD)	p value
Age group ^a		<.001***		<.001***		<.001***
18-30	49.73 (12.39)		17.02 (8.60)		16.13 (4.34)	
31-40	40.20 (11.94)		11.20 (9.42)		13.13 (4.85)	
41-50	35.66 (9.18)		8.04 (6.85)		11.45 (4.15)	
51-60	34.60 (9.12)		7.22 (6.24)		11.64 (4.22)	
61-70	36.48 (10.04)		8.25 (6.12)		12.36 (4.81)	
Gender ^b		.52		.84		.96
Male	40.19 (12.33)		10.81 (8.54)		13.13 (4.82)	
Female	39.73 (12.16)		10.71 (8.60)		13.11 (4.82)	
Marital status ^b		<.001***		<.001***		<.001***
Unmarried	42.99 (12.93)		12.77 (8.98)		14.07 (4.86)	
Married	37.69 (11.19)		9.26 (7.92)		12.41 (4.46)	
Education level ^a		<.01**		<.001***		<.001***
Primary or below	41.82 (5.56)		12.64 (3.04)		15.55 (2.98)	
Secondary	41.29 (12.46)		11.77 (8.88)		13.62 (4.82)	
Tertiary or above	38.71 (12.00)		9.81 (8.23)		12.62 (4.78)	
Employment status ^a		.15		.06		.71
Full-time employed	40.18 (12.66)		10.92 (8.95)		13.10 (4.83)	
Part-time employed	40.49 (10.54)		11.32 (7.65)		13.57 (5.06)	
Unemployed	43.00 (10.13)		13.67 (8.20)		14.00 (4.42)	
Retired	38.10 (10.39)		9.28 (6.26)		12.98 (4.69)	
Household income ^a		<.001***		<.001***		<.001***
\$9,999 or below	50.25 (8.64)		17.82 (5.47)		17.08 (2.99)	
\$10,000–\$19,999	38.88 (11.67)		10.05 (8.25)		12.85 (4.74)	
\$20,000–\$29,999	39.34 (12.19)		10.28 (8.49)		12.87 (4.78)	
\$30,000–\$39,999	38.09 (12.16)		9.35 (8.36)		12.32 (4.73)	
\$40,000 or above	39.14 (12.14)		10.36 (8.88)		12.76 (4.87)	
Participation in protests ^b		.75		.97		.32
Yes	40.09 (12.50)		10.75 (8.61)		13.29 (4.90)	
No	39.86 (12.07)		10.75 (8.61)		13.00 (4.75)	

*p < 0.05, **p < 0.01, ***p < 0.001

a One-way ANOVA was used to test the associations

b Independent sample t test was used to test the associations

Table 3 Multivariable regression of mental health variables with sociodemographic characteristics

Predictor	Anxiety symptoms			Depressive symptoms			Negative Affect		
	aOR	95% CI	p value	aOR	95% CI	p value	aOR	95% CI	p value
Age	.75	.71, .79	<.001	0.83	.80, .86	<.001	.92	.90, .94	<.001
Marital status									
Unmarried	12.96	2.86, 58.73	<.01	5.68	1.93, 16.67	<.01	2.45	1.32, 4.55	<.01
Married	1.00	Referent		1.00	Referent		1.00	Referent	
Education level									
Primary or below	9.72	6.15, 13.28	<.001	7.17	5.32, 9.01	<.001	4.79	2.85, 6.73	<.001
Secondary	9.23	2.34, 36.42	<.01	5.57	2.06, 15.02	<.01	2.40	1.35, 4.26	<.01
Tertiary	1.00	Referent		1.00	Referent		1.00	Referent	

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Predictor	Anxiety symptoms			Depressive symptoms			Negative Affect		
	aOR	95% CI	p value	aOR	95% CI	p value	aOR	95% CI	p value
Household income									
\$9,999 or below	8.76	6.57, 10.96	<.001	5.90	4.35, 7.45	<.001	3.62	2.74, 4.50	<.001
\$10,000–\$19,999	.49	.06, 4.04	.50	.55	.11, 2.61	.45	.94	.39, 2.27	.90
\$20,000–\$29,999	.67	.08, 5.58	.71	.61	.13, 2.96	.54	.90	.38, 2.14	.82
\$30,000–\$39,999	.35	.04, 2.87	.33	.36	.08, 1.64	.19	.63	.27, 1.48	.29
\$40,000 or above	1.00	Referent		1.00	Referent		1.00	Referent	

Note. aOR = adjusted odds ratio.