

# SNIPPET

CUTTING-EDGE APPLIED RESEARCH



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by *Dr. Rosaleen Ow*

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Keywords: LGB, minority stress, mental health, community connectedness

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Keywords: News, new media, COVID-19, pandemic, social service agencies, Singapore, corpus linguistics, text data analysis

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### Upcoming SSR Events



## EDITOR'S NOTE

*by Dr. Rosaleen Ow*

In this first Issue of Snippet 2022, the article “Minority Stress, Community Connectedness and Mental Health: A Study of Lesbian, Gay and Bisexual Young Adults (LGB) in Singapore” by Abel Peh examined the effects of minority stress among LGB persons on their psychological well-being. The study is novel in its attempt to identify the protective effects of community connectedness. Using a quantitative cross-sectional study design, the study found that higher levels of minority stress were associated with poorer mental health outcomes among LGB persons. Community connectedness also significantly reduced the associations between microaggression and psychological distress. The article will add to the dearth of systematic research on this subject in the Asian context and will be of help to social service practitioners working with these client groups.

The second article in this issue will be of broad interest to the wider social service community. “News Media Representations of Social Service Agencies (SSAs) in Singapore during COVID-19 Pandemic” by Gerard Chung describes an exploratory study on how the local news media reported on the type of challenges experienced by SSAs during the pandemic. The analyses used a collection of text data from a total of 1,095 English-language newspaper articles published in the three main news sources in Singapore. The study found a significant increase in news on SSAs during the pandemic highlighting problems such as service disruptions, funding problems, and manpower issues. This image of “social services-in-distress” was, however, balanced by news on SSAs’ expertise, active collaborations, and continuity in providing essential services. The many client groups represented in the news also represent the complexity of issues and the diverse client groups that SSAs in Singapore engage with. The paper argues for SSAs to take on a more proactive media strategy to promote their work and services and to advocate for the needs of clients.

This second article as well as many other local and international studies have shown how the pandemic has impacted clients and social services and will possibly change the future landscape for social service delivery. Our upcoming SSR Conference 2022 “Post-Pandemic Challenges and Planning for Social Services” will initiate an important dialogue among policy-makers, social service professionals, and researchers to envision the future of social services in the post-pandemic period. We welcome you to sign up for this conference [here](#).

Enjoy the read and best wishes for a fruitful new year!

# Minority Stress, Community Connectedness and Mental Health: A Study of Lesbian, Gay and Bisexual Young Adults (LGB) in Singapore

by Abel Peh

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Keywords: LGB, minority stress, mental health, community connectedness

## Introduction

This article seeks to examine the effects of minority stress on psychological well-being and to explicate the potential moderating effects of community connectedness on this relationship through a quantitative cross-sectional study.

Public discourse surrounding lesbian, gay and bisexual (LGB) issues in Singapore tends to be shrouded in polarised debates surrounding Section 377A of the Penal code – with queer activists fiercely advocating for legal change on one end, while conservative religious groups pushing back on the other (Han, 2018). Notwithstanding the necessity of such discourse, its unintentional polarising effects could result in casting complex LGB experiences to a simple for-against or right-wrong dichotomy. In doing so, it risks distracting many from the lived realities of LGB persons, who by virtue of their sexual orientation face a disproportionate amount of stress. Beyond the veil of labels such as *Pink Dot* and *White Wear Campaign* are the lesser heard stories of everyday prejudice and stigma faced by sexual minorities.

While a wealth of literature suggests that the experience of minority stress (Meyer, 2003) can lead to poorer mental health outcomes, the bulk of these studies herald from the West, with few in Asia and none in Singapore. This dearth of local research could be attributed to the lack of public data on sexual identity and how topics of sexuality remain largely taboo and divisive (Ong, 2021; Mathews et al., 2019). Moreover, most academic studies on minority stress have also been focused on examining the causal relationships between minority stress processes and mental well-being, with few going beyond to explicate the potential moderating effects of group-level resources such as community connectedness. Lastly, in measuring minority stress, most studies also do not delineate overt forms of discrimination from its relatively more subtle and implicit form of microaggression.

In view of these research gaps, this study aims to contribute to the scarce local literature on LGB issues by (1) examining the effects of minority stress on psychological distress and (2) to explicate the potential moderating effects of community connectedness on this relationship.

Figure 1

Note: Illustration of the Minority Stress Model.

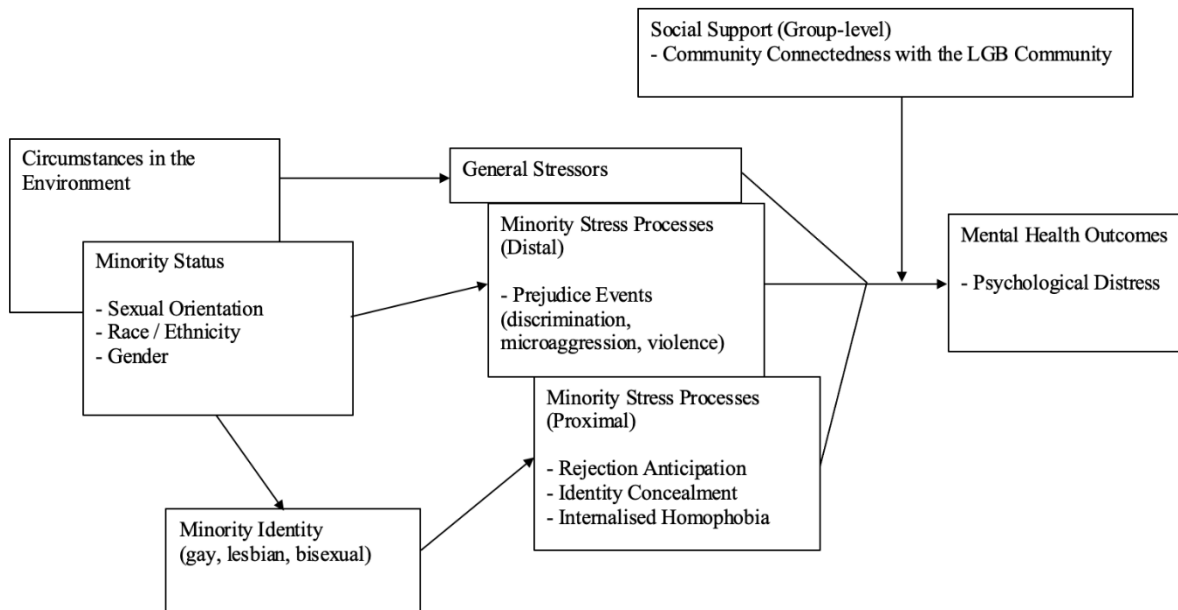


Figure 1: The Minority Stress Model, adapted from "Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence," by I. H. Meyer, 2003, *Psychological Bulletin*, 129(5), p. 674-697. Copyright 2003 by the American Psychological Association

The Minority Stress Model (see Figure 1) postulates that sexual minority individuals experience unique and often chronic stressors arising from their stigmatised sexual identities, and these can implicate negatively on mental health outcomes (Meyer, 2003). Meyer identified two distal stressors: Discrimination and Victimisation, and three proximal stressors: Internalised Homophobia, Concealment of Sexual Identity, and Rejection Anticipation. In this study, the domain of Victimisation is excluded in consideration of the construct's limited applicability in the Singapore context. Given high levels of safety where the overt experience of physical violence and aggression is rare, it is conceivable that LGB individuals would experience low levels of victimisation. In addition, this study has delineated overt forms of discrimination from its more subtle form of microaggression. In the following sub-sections, I will elaborate on these concepts.

**Discrimination.** Discrimination refers to the experience of external, objective stressful events and conditions, and which can have psychologically injurious effects on the individual. Numerous studies have established that the experiences of discrimination can impact negatively on the mental well-being of LGB persons (Craney et al., 2018; Eisenberg et al., 2019). Meta-analyses have also found discrimination events as having significant positive associations with psychological distress, with a small-to-medium effect size (Newcomb & Mustanski, 2010; Schmitt et al., 2014).

**Microaggression.** Studies have shown that discrimination towards sexual minority persons is increasingly adopting more subtle forms known as "microaggression" (Jewell & Morrison, 2010; Nadal, Whitman, Davis, Erazo, & Davidoff, 2016). These are often unintentional acts of discrimination that may come in the form of "everyday verbal, nonverbal, and environmental slights, snubs, or insults" (Sue, 2010, p.3) that inadvertently marginalise sexual minority groups. Overall, research has

evidenced how LGB-based microaggressions can lead to poorer mental health and psychiatric morbidity (Woodford et al., 2014; Woodford et al., 2015; Nadal et al., 2012).

**Internalised Homophobia.** Internalised homophobia refers to the process through which negative societal attitudes about homosexuality are directed towards, and internalised by the individual (Meyer, 2003; Szymanski et al., 2008). Even before one can become aware of their own minority status, they would have been socialised and exposed to anti-homosexual attitudes – and as they become cognisant of their own same-sex attraction, these previously acquired heterosexist ideas become applied to their appraisals of the self (Meyer, 1995). The negative effects of internalised homophobia had been widely reported where higher levels of internalised homophobia were found to be positively correlated to poorer mental health outcomes (Newcomb & Mustanski, 2010; Szymanski et al., 2008; Hoy-Ellis, 2015, Frost, 2011).

**Concealment of Sexual Identity.** Concealment of sexual identity refers to the manner through which individuals hide their minority identity so as to avoid prejudiced responses associated with disclosure. These may include behaviours such as monitoring speech, mannerisms and dressing. In the short-term, concealment of identity as a means of coping can have stress-ameliorative effects by shielding individuals from being visible targets of discrimination (Frost et al., 2007). However, in the longer-term, the prolonged hiding of one's sexual identity can be psychologically demanding and could induce coping fatigue – and often, the distress arising from such constant fear of discovery exceeds the stress-moderating effects of the short term (Pachankis, 2007; Cohen et al., 2016; Lehavot & Simoni, 2011; Pistella et al., 2016).

**Rejection Anticipation.** Rejection anticipation refers to how sexual minority individuals appraise potentially prejudicial situations and hence become hypervigilant so as to avoid the perceived consequences of being discovered (Meyer, 1995). Such hypervigilance can be a result of direct or indirect experiences of rejection that impact on their sensitivity to rejection (Feinstein, 2019). Living in constant fear of being rejected can result in extremely stressful hypervigilance that requires considerable amounts of energy for adaptation (Christie & Allport, 1954). Overall, the negative impacts of rejection anticipation on psychological distress have been well-documented (Feinstein et al., 2012; Feinstein, 2019).

**Moderating Protective Factor: Community Connectedness.** In his model of minority stress, Meyer (2003) saw minority status as not only associated with stressors but can also serve as an important group-level coping resource that has the potential of moderating the negative effects of minority stress (Major & O'Brien, 2005; Meyer, 2003). Community connectedness refers broadly to a sense of belonging or in-group affiliation to the greater community consisting of other sexual minorities (Frost & Meyer, 2012; Meyer, 2003). Having strong community affiliation can offer members an avenue to mutually validate their experiences and to provide an affirmative reappraisal of distressing situations – thereby abating the negative effects minority stress has on mental health (Meyer, 2003). In general, research has shown that among sexual minority individuals who are more connected, these affiliations reduced the negative effects of discrimination, microaggression, and internalised homophobia on ill-mental health (Szymanski & Owens, 2009; Lee et al., 2019; Salfas et al., 2019; Kaniuka et al., 2019; Puckett et al., 2015).

### ***LGB Mental Health Research in Asia and Singapore***

Current literature on minority stress and the mental well-being of sexual minorities tends to be skewed towards Western societies, with only a handful of studies conducted in Asia. Of the few in Asia, meta-analyses undertaken by Sun et al. (2020) as well as Wei et al. (2020) both found high prevalence of mental health issues such as depression, anxiety and suicidal behaviours among Chinese gay men. In addition, a South Korean study with more than 2,000 LGB individuals reported that among respondents with lower levels of community connectedness, there is a significant positive association between sexuality-based discrimination and depressive symptoms (Lee et al., 2019). Closer to home, a cross-sectional study involving 3,263 undergraduates from five ASEAN countries (Indonesia, Malaysia, Myanmar, Thailand, and Vietnam)

found that lesbian, gay, bisexual and transgender (LGBT) students were more likely to report depression and suicide attempts as compared to their heterosexual peers (Peltzer & Pengpid, 2016). Such finding coheres with a separate research study by Lian and colleagues (2015) that saw high prevalence of suicidal ideation and attempts among LGB youths in Hanoi, Shanghai, and Taipei.

In contrast, research on LGB mental health is scant in Singapore. Of the few available LGB-related studies, they tend to adopt a sociological or political lens to understanding issues such as gay rights, political movement, and sexual citizenship (Oswin, 2019; Zubillaga-Pow & Yue, 2012; Chua, 2015; Phillips, 2014). Meanwhile, other health studies tend to focus exclusively on the experiences of gay and bisexual men and are targeted at specialised health topics such as sexualised substance use (Tan et al., 2018; Tan, 2020) and sexually transmitted diseases (Tan et al., 2020).

### **Purpose of the Study**

Consequently, this study seeks to answer the following research questions:

(1) Is there an association between levels of minority stress and levels of psychological distress among LGB young adults in Singapore and

(2) Does LGB community connectedness have a moderating effect on the relationship between certain minority stressors – internalised homophobia, discrimination events, microaggression – and psychological distress?

## **Methodology**

This is a quantitative cross-sectional study pursuing a descriptive and explanatory purpose. Participants were recruited via convenience and snowball sampling through social media, word of mouth, and major LGBT community groups. To be eligible for the study, participants must be a Singapore citizen, between the ages of 18 and 35 years old, and identify as either lesbian, gay or bisexual. The final sample comprised of 469 participants aged 18 to 35 years old ( $M=26.8$ ,  $SD=4.44$ ).

### **Measures**

#### ***Covariates***

Sociodemographic characteristics collected for this study were age, gender, sexual identity, ethnicity, level of education, income and perceived level of religiosity.

#### ***Independent Variables***

To measure sexual minority stress, specific sub-scales from the LGBT Minority Stress Measure (Outland, 2016) were adapted. All questions were answered on a five-point Likert scale.

**Discrimination Events.** This subscale asks about experiences of discrimination, prejudice, and unfair treatment in various settings such as in the workplace and school. An example of a question includes *“I have been treated unfairly by teachers, colleagues or supervisors because I am lesbian/gay/bisexual”*.

**Microaggression.** This subscale asks about day-to-day micro-discrimination an LGB person faces as a result of their sexual minority status, as well as situations that may be perceived as prejudicial, but may not have been intended as such by the wrongdoer. An example of a question includes *“I have been told that I am not really lesbian/gay/bisexual because I am confused or looking for attention”*.

**Identity Concealment.** This subscale measures the extent to which the individual conceals their sexual identity. Questions consider the internal process individuals go through before deciding what, how much, to whom, and when to disclose their sexual identity. An example of a question includes *“I limit what I share on social media, or who can see it, because I do not want others to know I am lesbian/gay/bisexual”*.

**Internalised Homophobia.** This subscale measures the negative and heterosexist attitudes individuals hold towards themselves. An example of a question includes *“I have tried to stop being lesbian/gay/bisexual”*.

**Rejection Anticipation.** This subscale examines the extent to which LGB individuals find themselves having to worry about being a target of discriminatory regard and having to be hypervigilant as they appraise potentially prejudicial situations. An example of a question includes *“I worry about what will happen if people find out I am lesbian/gay/bisexual”*.

### ***Dependent Variable***

**Psychological Distress.** To measure mental well-being, the Kessler Psychological Distress Scale (K10) was adopted (Kessler et al., 2003). This 10-item scale measures symptoms of anxiety and depression in the past 30 days.

### ***Moderator***

**Community Connectedness.** To measure community connectedness, the Community Connectedness/Affiliation Scale as part of the Urban Men’s Health Study (UMHS; Barrett & Pollack, 2005; Frost & Meyer, 2012) was adapted. The scale measures three distinct components of the LGB community: Closeness, Positivity, and Focus on the societal issues faced collectively by the community (Frost & Meyer, 2012). Questions include *“You feel you’re a part of Singapore’s LGB community”* and *“Participating in Singapore’s LGB community is a positive thing for you”*.

### **Data Analysis**

Multivariable ordinary least square linear regression was performed to examine the association between minority stress processes and psychological distress, and to determine whether community connectedness moderated the association between specific minority stressors (namely, discrimination events, microaggression and internalised homophobia) and psychological distress. In each of the three interaction models, covariates of age, gender, sexual identity, ethnicity, income, and religiosity were included. Significant interactions were probed and plotted to examine the nature, strength, and direction of effects. Only data from participants who had complete information for all variables were included in the analytical model ( $N=436$ ).

# Results

## Demographic Characteristic

Table 1

Characteristics	Total ( <i>N</i> =469) <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Gays ( <i>n</i> =173) <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Lesbians ( <i>n</i> =124) <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Bisexuals ( <i>n</i> =172) <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Test Statistic	<i>p</i>
Age (in years) <i>M</i> ( <i>SD</i> )	26.8 (4.44)	27.8 (4.28)	27.7 (4.28)	25.1 (4.23)	$F(2, 466) = 20.05$	<.001
Sex at Birth <i>n</i> (%)						
Male				38 (22.1)		
Female				134 (77.9)		
Ethnicity <i>n</i> (%)						
Chinese	372 (79.3)	147 (85)	97 (78.2)	128 (74.4)	$\chi^2(1, 469) = 5.98$	.05
Malay	40 (8.53)	15 (8.67)	11 (8.87)	14 (8.14)		
Indian	33 (7.04)	6 (3.47)	9 (7.26)	18 (10.5)		
Other <sup>a</sup>	24 (5.12)	5 (2.89)	7 (5.65)	12 (6.98)		
Education <i>n</i> (%)						
< Tertiary/Post-Secondary	4 (0.853)	2 (1.16)	1 (0.806)	1 (0.581)		
≥ Tertiary/Post-Secondary	465 (99.1)	171 (98.8)	123 (99.2)	171 (99.4)		
Income <i>n</i> (%)					$\chi^2(1, 436) = .7467$	.688
< Median (\$3000)	253 (53.9)	98 (56.6)	66 (53.2)	89 (51.7)		
≥ Median (\$3000)	183 (39)	65 (37.6)	54 (43.5)	64 (37.2)		
Missing	33 (7.04)					
Religiosity <i>n</i> (%)					$\chi^2(1, 469) = .6509$	.722
Religious	33 (7.04)	16 (9.25)	7 (5.65)	10 (5.81)		
Somewhat Religious	156 (33.3)	49 (28.9)	46 (37.1)	60 (34.9)		
Non-Religious	251 (53.5)	101 (58.4)	60 (48.4)	90 (52.3)		
Not Sure	29 (6.18)	6 (3.47)	11 (8.87)	12 (6.98)		
Minority Stress <i>M</i> ( <i>SD</i> ) <sup>b</sup>	2.57 (.597)	2.56 (.608)	2.65 (.584)	2.52 (.593)	$F(2, 466) = 1.73$	.179
Discrimination Events	1.76 (.714)	1.74 (.735)	1.89 (.738)	1.69 (.665)	$F(2, 466) = 3.11$	.0454
Microaggression	2.69 (.629)	2.62 (.613)	2.83 (.607)	2.67 (.651)	$F(2, 466) = 4.29$	.0143
Identity Concealment	3.05 (1.02)	3.15 (1.08)	3.01 (1.01)	2.96 (.966)	$F(2, 466) = 1.63$	.197
Internalised Homophobia	2.25 (.996)	2.31 (1.01)	2.22 (.908)	2.22 (1.05)	$F(2, 466) = .046$	.634
Rejection Anticipation	3.00 (1.03)	2.92 (1.03)	3.16 (1.00)	2.97 (1.04)	$F(2, 466) = 2.07$	.128
Community Affiliation <i>M</i> ( <i>SD</i> )	3.41 (.711)	3.37 (.745)	3.43 (.733)	3.44 (.661)	$F(2, 466) = .360$	.697
Psychological Distress <i>M</i> ( <i>SD</i> )	26.1 (9.78)	23.5 (9.68)	26.6 (9.18)	28.4 (9.73)	$F(2, 466) = 11.62$	<.001

Note. Group differences were assessed using the Analysis of Variance (ANOVA) and chi-squared test.

<sup>a</sup> "Other" response to ethnicity include Javanese, Japanese, Pakistani, Vietnamese, Ceylonese, Burmese and mixed-race.

<sup>b</sup> Total Minority Stress is the mean composite scores of all minority stress domains: Discrimination Events, Microaggression, Identity Concealment, Internalised Homophobia and Rejection Anticipation. Higher scores indicate higher levels of LGB minority stress.

\*\*\**p* < .001, \*\**p* < .01, \**p* < .05, +*p* < .10

Table 1: Sociodemographic Characteristics, Levels of Psychological Distress and Minority Stress by Sexual Orientation Group.

Table 1 displays the summary statistics of the sample's demographic characteristics (*N*=469). The average age of participants was 27 years old, and the study yielded equally high responses across all sexual orientation groups: gays (37%), lesbians (26%) and bisexuals (37%). The study also comprised a racially diverse and representative sample (79% Chinese, 8.5% Malays, 7.1% Indians, and 5% Others) consistent with national-level data (Singapore Government, 2019). A large majority of respondents had at least a post-secondary education (99%), were non-religious (54%), and earned below the median income of \$3000 (54%).



## Study Findings

Overall, results in Table 2 provide strong support for the primary hypothesis that higher levels of minority stress are associated with poorer mental health outcomes, with microaggression having the largest effect, followed by rejection anticipation and internalised homophobia. Results also revealed that community connectedness significantly moderated the influence of microaggression on psychological distress. Specifically, at low levels of microaggression, being more connected to the community reduces their levels of distress. However, interestingly, at high microaggression levels, it was observed that being more connected is associated with greater distress relative to those less connected.

**Table 2**

Effect	<i>b</i>	<i>SE</i>	<i>SE</i> β	95% CI		<i>p</i>
				<i>LL</i>	<i>UL</i>	
<b>Control variables</b>						
Age	−.297	.0969	.0932	−.480	−.114	.002
Gender (Female)	3.84	1.59	1.50	.887	6.79	.011
Sexual Identity						
Lesbian	−1.74	1.85	1.83	−5.33	1.85	.340
Bisexual	.670	1.56	1.49	−2.26	3.60	.653
Ethnicity (Non-Chinese)	2.82	.976	1.06	.728	4.90	.008
Income (>\$3000)	−1.08	.806	.793	−2.64	.483	.175
Religiosity (Non-Religious)	.251	.814	.845	−1.41	1.91	.766
<b>Minority Stress Processes</b>						
Discrimination Events	.0759	.119	.145	−.209	.361	.601
Microaggression	3.63	.762	.811	2.04	5.23	<.001
Identity Concealment	−.0322	.0841	.0892	−.208	.143	.718
Internalised Homophobia	.178	.0655	.0687	.0426	.313	.010
Rejection Anticipation	.311	.0938	.113	.0885	.533	.006

$$R^2 = .3260$$

$$F(12,423) = 20.19, p < .001$$

*Note.* *N* = 436. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

*b* = regression coefficient; *SE* = standard error; *SE β* = standard error calculated using robust estimator. Analysis was conducted using data from participants who had complete information for all variables included in the analytic model (*N* = 436).

Table 2: Results for Regression of Psychological Distress by Individual Minority Stress Processes and Demographic Characteristics

### **Effects of Distal Stress Processes on Psychological Distress**

Experiences of microaggression had the largest effect on psychological distress (see Table 2). This significant positive association is consistent with prior studies. The prevalence of microaggression also coheres with a community study by Oogachaga (2012) which found microaggression as the most prevalent form of prejudice, and where individuals who have experienced sexuality-based discrimination reported significantly higher incidences of suicidal ideation. Discrimination events, in contrast, was not found to be significantly associated with psychological distress.

## Effects of Proximal Stress Processes on Psychological Distress

Study findings found rejection anticipation and internalised homophobia to be strong factors of poor mental health (see Table 2). These significant positive associations are consistent with previous studies. Identity concealment, on the other hand, was not found to be significantly associated with psychological distress.

## Moderating Effects of Community Connectedness

Table 3

Effect	<i>b</i>	<i>SE</i>	<i>SE</i> $\beta$	95% CI		<i>p</i>
				<i>LL</i>	<i>UL</i>	
<b><i>Control variables</i></b>						
Age	−.290	.0964	.0925	−.472	−.108	.002
Gender (Female)	3.95	1.58	1.52	.950	6.90	.01
Sexual Identity						
Lesbian	−1.90	1.84	1.84	−5.51	1.71	.301
Bisexual	.580	1.55	1.54	−2.44	3.60	.706
Ethnicity (Non-Chinese)	2.76	.97	1.06	.672	4.85	.01
Income (>\$3000)	−.860	.804	.799	−2.43	−.71	.282
Religiosity (Non-Religious)	.303	.809	.837	−1.34	1.95	.718
<b><i>Minority Stress Processes</i></b>						
Discrimination Events	.0828	.12	.151	−.214	.380	.584
Microaggression	3.93	.765	.794	2.37	5.49	<.001
Identity Concealment	−.0395	.0839	.0878	−.212	.133	.653
Internalised Homophobia	.163	.0657	.0685	.028	.297	.018
Rejection Anticipation	.309	.0934	.110	.092	.526	.005
<b><i>Protective Factor</i></b>						
Community Connectedness (CC)	−.155	.084	.0868	−.326	.0154	.075
<b><i>Interaction Terms</i><sup>a</sup></b>						
Discrimination Events $\times$ CC	—	—	—	—	—	.671
Microaggression $\times$ CC	.228	.105	.111	.0251	.459	.04
Internalised Homophobia $\times$ CC	—	—	—	—	—	.625

$$R^2 = .3385$$

$$F(14,421) = 22.24, p < .001$$

Note. *N* = 436. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

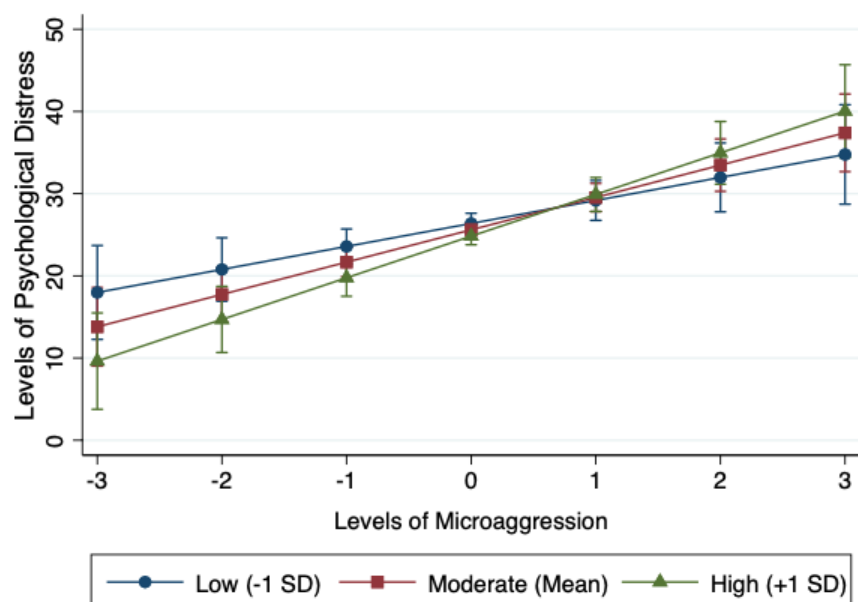
*b* = regression coefficient; *SE* = standard error; *SE*  $\beta$  = standard error calculated using robust estimator. Analysis was conducted using data from participants who had complete information for all variables included in the analytic model (*N* = 436).

<sup>a</sup> Three separate interaction models were ran for each of the three interaction terms. Only statistically significant findings (i.e., Microaggression  $\times$  CC) are reported in the table.

Table 3: Results for Regression of Psychological Distress with Moderation of Community Connectedness

**Microaggression  $\times$  Community Connectedness.** While the findings revealed community connectedness as having a significant moderating effect on the influence of microaggression on psychological distress (see Table 3), the direction and effect of this moderation only partly support our second hypothesis that psychological distress will be lower among respondents with higher levels of community connectedness.

**Figure 2**



*Note.* The vertical axis displays the combined item score of Kessler-10 which measures psychological distress, which ranges from 10 to 50. The horizontal axis displays the square root transformed scores of the microaggression variable, which ranges from -3 to 3. “Low” level stands for respondents with levels of community connectedness below one standard deviation of the mean. “Moderate” level stands for respondents with levels of community connectedness at the mean. “High” level stands for respondents with community connectedness one standard deviation above the mean. Microaggression and community connectedness were centred prior to moderation analysis.

Figure 2: Levels of psychological distress by levels of microaggression experienced – examined at three levels of community connectedness

As seen in Figure 2, at low levels of reported microaggression, microaggression had the strongest negative association with psychological distress for respondents with high levels of community connectedness. This stress-buffering effect that arises from being more connected to the community converges with prior studies (Szymanski & Owens, 2009). However, at higher levels of microaggression, having strong connections to the community no longer acts as a stress-ameliorating factor but seems to ‘exacerbate’ the effects of microaggression such that individuals who were more connected experience higher levels of distress. In other words, while respondents with low levels of microaggression and high levels of connectedness had the best mental health scores, the buffering effects of community connectedness decline as the experience of microaggression increases, such that individuals who are most connected experience highest levels of distress.

This unexpected finding should be interpreted with caution: it is likely *not* community connectedness per se that presents as a risk factor for poor mental health, but that being connected is associated with being more ‘out’, and this increased visibility subjects individuals to being more visible targets of sexuality-based prejudice. Furthermore, highly connected individuals, who by virtue of their strong attachment to, and identification with the community, are also more likely to experience heightened sensitivity to potential negative regard. Consequently, any attack targeted at the community is likely to be taken more personally and seriously – and this is particularly so for individuals whose membership to the community is a central part of their identity.

***Discrimination Events × Community Connectedness.*** Contrary to our hypothesis, the associations between (1) discrimination events and psychological distress, as well as (1) internalised homophobia and psychological distress, were not significantly moderated by community connectedness.

## Implications of the Study

### Implications on Social Work Practice

Study findings reflect the importance for social workers to assess minority stress among LGB clients and be cognisant of how stress processes such as microaggression, internalised homophobia and rejection anticipation can impact the experience of psychological distress. In view of the large effect of microaggression on distress levels, while it is not possible for practitioners to “reduce” the experience of microaggression considering how it is a distal stressor that is independent of the individual, practitioners can instead equip clients with adaptive coping skills that could reduce its ill-effects. For instance, the learning of emotional regulation techniques and how they can respond to prejudice without putting themselves at greater emotional vulnerability.

In addition, social workers should actively work towards minimising potential sources of rejection that could arise from the therapeutic relationship. Often, as a result of internalised homophobia and previous rejection experiences, LGB clients could embrace themselves for potential disrespect and rejection – even before stepping foot into the agency. It is hence helpful for practitioners and their organisations to reassure clients of non-discriminatory practices, and to foster an environment where LGB individuals feel safe to disclose their sexuality and experiences. Such efforts may include reviewing the semantics used in intake forms as well as equipping practitioners with a language repository sensitive to the LGB experience. These adjustments not only embody respect to the varied experiences of LGB persons but also provide practitioners with invaluable information for assessment.

Study findings have also shown that being more connected to the LGB community could yield positive stress-ameliorative effects. This emphasises the importance for social workers to explore opportunities where LGB individuals can foster a sense of belonging and where they can reap benefits arising from group support. That said, practitioners should conduct this sensitively and in tandem with the comfort level of clients. For instance, for a LGB youth who prefers not to or is not yet ready to “come out”, being exposed to formal LGB networks could induce greater stress. Instead, workers can explore varied options with them (e.g., tapping onto other informal and casual networks) where they can still reap benefits arising from group support but need not compromise on their desire for privacy.

Moreover, practitioners working with clients who are highly connected to the LGB community should also take note of the potential distress associated with it – specifically, possible prejudice experiences stemming from increased visibility as well as possible emotional strain from over-identification. In these situations, rather than discouraging clients from further developing these connections (considering how they could still reap stress-buffering benefits), practitioners should focus on equipping them with adaptive strategies that can abate the ill-effects of discriminatory regard and help them develop and maintain healthy boundaries between the ‘self’ and the community.

While micro-level interventions are necessary, one might argue that they are at best mitigative in nature. Their efficacy is largely limited by systemic structures such as heterosexist norms that could weigh heavily on the experiences of LGB individuals. Consequently, counselling should go in tandem with greater upstream efforts targeted at preventive work. These may include public education aimed at helping individuals become more aware of the nuances in LGBT issues, and thereby foster a culture of empathy. Such increased sensitivity and appreciation for differences can yield rippling effects in the long run.

## Implications for Future Research

First, future studies may benefit from exploring other indirect pathways of moderation. Research has increasingly shown how minority stress processes can interact with one another to affect health outcomes: for instance, experiences of microaggression can heighten one's sense of anticipation rejection, and these, in turn, affect decisions to conceal one's identity, which then reinforce internalised homophobia. (Moe, 2016; Kaniuka et al., 2019) Second, future research design could also incorporate a dimension of minority stress theory not covered in this study: the characteristics of sexual identity. This includes examining identity prominence, valence, and integration (Ashmore et al., 2004). These are important dimensions of sexual identity that could implicate health outcomes, beyond minority stress processes and group-level social support. As much as possible, research should also account for the intersectionality of minority identities (e.g., race and sexuality) as studies have increasingly shown how this can confer individuals with double stigma, limit their coping resources, and thereby putting them at higher risk of distress (Meyer, Schwartz, & Frost, 2008). Finally, future studies could attempt to overcome the limitations of a cross-sectional study by adopting a longitudinal study – this would enrich literature by more confidently establishing potential causality, and to control for cohort confounds if any.

## Limitations

This study was not without limitations and its findings should be interpreted in consideration of the following: First, as the sample was recruited with the intention and incentive to further understand issues within the LGB community, responses may be prone to social desirability bias. Respondents who wish to use this platform to counteract existing stigma may be reluctant to disclose experiences undesirable to the community. Second, as data was collected through LGBT organisations and student groups, it may have resulted in biased participation from LGB members who were already socially connected within the community and who were also more likely to be comfortable with their sexual identity. These individuals could differ in important characteristics from members unconnected to these networks, such as experiencing lower levels of identity concealment and having higher community connectedness. Third, as with other cross-sectional studies, findings should not be taken as evidence for causality between the investigated minority stress processes and psychological distress. It is possible that increased psychological distress could also foster a heightened sense of minority stress. Moreover, as the data only represents a snapshot of the population at the time of the study, it is unable to capture changes in mental health and the experiences of minority stressors across time – which could potentially introduce cohort confounders.

## Conclusion

With data collected from 469 LGB young adults in Singapore, this study has provided a wealth of information about the demographics of self-identified LGB young adults in Singapore which is valuable in a climate where public data on sexuality is scarce, and where research on the intersections of sexuality and mental health is rare. This study has also distinguished the effects of microaggression from overt discrimination events – a component relatively absent in existing studies on minority stress.

The findings from this study lend good empirical justification for future social work interventions. Specifically, the study has found a statistically significant and positive relationship between minority stress and psychological distress, with microaggression having the largest effect, followed by rejection anticipation and internalised homophobia. This reinforces (1) the importance for social workers to be cognisant of how minority stress can impact on clients' mental well-being, (2) the necessity in fostering a non-judgmental environment where clients feel safe to disclose their experiences, and (3) the importance of engaging in upstream efforts such as equipping social work students with the knowledge and skills necessary

to render culturally sensitive services. Lastly, the study also extends the importance of recognising the complexity involved in the interaction between community connectedness, microaggression, and psychological distress.

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## References

- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An Organizing Framework for Collective Identity: Articulation and Significance of Multidimensionality. *Psychological Bulletin*, 130(1), 80–114. <https://doi.org/10.1037/0033-2909.130.1.80>
- Barrett, D. C., & Pollack, L. M. (2005). Whose Gay Community? Social Class, Sexual Self-Expression, and Gay Community Involvement. *The Sociological Quarterly*, 46(3), 437–456. <https://doi.org/10.1111/j.1533-8525.2005.00021.x>
- Christie, R., & Allport, G. W. (1954). The nature of prejudice. *The American Journal of Psychology*, 67(4), 742. <https://doi.org/10.2307/1418507>
- Chua, L. J. (2015). *Mobilizing gay Singapore: Rights and resistance in an authoritarian state*. Philadelphia: Temple University Press.
- Cohen, J. M., Blasey, C., Taylor, C. B., Weiss, B. J., & Newman, M. G. (2016). Anxiety and related disorders and concealment in sexual minority young adults. *Behavior Therapy*, 47(1), 91–101. <https://doi.org/10.1016/j.beth.2015.09.006>.
- Craney, R. S., Watson, L. B., Brownfield, J., & Flores, M. J. (2018). Bisexual women's discriminatory experiences and psychological distress: Exploring the roles of coping and LGBTQ community connectedness. *Psychology of Sexual Orientation and Gender Diversity*, 5(3), 324–337. <https://doi.org/10.1037/sgd0000276>
- Ceatha, N., Mayock, P., Campbell, J., Noone, C., & Browne, K. (2019). The Power of Recognition: A Qualitative Study of Social Connectedness and Wellbeing through LGBT Sporting, Creative and Social Groups in Ireland. *International Journal of Environmental Research and Public Health*, 16(19), 3636. <https://doi.org/10.3390/ijerph16193636>
- Chan, R. C. H., Operario, D., & Mak, W. W. S. (2020). Bisexual individuals are at greater risk of poor mental health than lesbians and gay men: The mediating role of sexual identity stress at multiple levels. *Journal of Affective Disorders*, 260, 292–301. <https://doi.org/10.1016/j.jad.2019.09.020>
- Eisenberg, M. E., Gower, A. L., Rider, G. N., McMorris, B. J., & Coleman, E. (2019). At the intersection of sexual orientation and gender identity: variations in emotional distress and bullying experience in a large population-based sample of U.S. adolescents. *Journal of LGBT Youth*, 16(3), 235–254. <https://doi.org/10.1080/19361653.2019.1567435>
- Ferraro, K. F., & Farmer, M. M. (1996). Double Jeopardy to Health Hypothesis for African Americans: Analysis and Critique. *Journal of Health and Social Behavior*, 37(1), 27. <https://doi.org/10.2307/2137229>
- Friedman, R. C. (1999). Homosexuality, Psychopathology, and Suicidality. *Archives of General Psychiatry*, 56(10), 887. <https://doi.org/10.1001/archpsyc.56.10.887>
- Frost, D. M., Parsons, J. T., & Nanín, J. E. (2007). Stigma, Concealment and Symptoms of Depression as Explanations for Sexually Transmitted Infections among Gay Men. *Journal of Health Psychology*, 12(4), 636–640. <https://doi.org/10.1177/1359105307078170>
- Frost, D. M. (2011). Social Stigma and its Consequences for the Socially Stigmatized. *Social and Personality Psychology Compass*, 5(11), 824–839. <https://doi.org/10.1111/j.1751-9004.2011.00394.x>
- Frost, D. M., & Meyer, I. H. (2012). Measuring Community Connectedness among Diverse Sexual Minority Populations. *Journal of Sex Research*, 49(1), 36–49. <https://doi.org/10.1080/00224499.2011.565427>

- Feinstein, B. A., Goldfried, M. R., & Davila, J. (2012). The relationship between experiences of discrimination and mental health among lesbians and gay men: An examination of internalized homonegativity and rejection sensitivity as potential mechanisms. *Journal of Consulting and Clinical Psychology*, 80(5), 917–927. <https://doi.org/10.1037/a0029425>
- Feinstein, B. A. (2019). The rejection sensitivity model as a framework for understanding sexual minority mental health. *Archives of Sexual Behavior*. <https://doi.org/10.1007/s10508-019-1428-3>.
- Herek, G. M., Gillis, R. J., & Cogan, J. C. (2009). Supplemental Material for Internalized Stigma Among Sexual Minority Adults: Insights From a Social Psychological Perspective. *Journal of Counseling Psychology*, 56, 43–43. <https://doi.org/10.1037/a0014672.supp>
- Hoy-Ellis, C. P. (2015). Concealing Concealment: The Mediating Role of Internalized Heterosexism in Psychological Distress Among Lesbian, Gay, and Bisexual Older Adults. *Journal of Homosexuality*, 63(4), 487–506. <https://doi.org/10.1080/00918369.2015.1088317>
- Han, S. (2018). Wear White: The mediatized politics of religious anti-LGBT activism in Singapore. *Nordic Journal of Religion and Society*, 31(1), 41–57. DOI: 10.18262/issn.1890-7008-2018-01-03.
- Jewell, L. M., & Morrison, M. A. (2010). “But There’s a Million Jokes About Everybody . . .”: Prevalence of, and Reasons for, Directing Negative Behaviors Toward Gay Men on a Canadian University Campus. *Journal of Interpersonal Violence*, 25(11), 2094–2112. <https://doi.org/10.1177/0886260509354499>
- Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., ... Zaslavsky, A. M. (2003). Screening for Serious Mental Illness in the General Population. *Archives of General Psychiatry*, 60(2), 184. <https://doi.org/10.1001/archpsyc.60.2.184>
- Kaniuka, A., Pugh, K. C., Jordan, M., Brooks, B., Dodd, J., Mann, A. K., ... Hirsch, J. K. (2019). Stigma and suicide risk among the LGBTQ population: Are anxiety and depression to blame and can connectedness to the LGBTQ community help? *Journal of Gay & Lesbian Mental Health*, 23(2), 205–220. <https://doi.org/10.1080/19359705.2018.1560385>
- Lehavot, K., & Simoni, J. M. (2011). The impact of minority stress on mental health and substance use among sexual minority women. *Journal of Consulting and Clinical Psychology*, 79(2), 159–170. <https://doi.org/10.1037/a0022839>.
- Lian, Q., Zuo, X., Lou, C., Gao, E., & Cheng, Y. (2015). Sexual Orientation and Risk Factors for Suicidal Ideation and Suicide Attempts: a Multi-centre Cross- Sectional Study in Three Asian Cities. *Journal of Epidemiology*, 25(2), 155– 161. <https://doi.org/10.2188/jea.je20140084>
- Lee, H., Park, J., Choi, B., Yi, H., & Kim, S.-S. (2019). Association between Discrimination and Depressive Symptoms Among 2,162 Lesbian, Gay, and Bisexual Adults in South Korea: Does Community Connectedness Modify the Association? *Journal of Homosexuality*, 68(1), 70–87. <https://doi.org/10.1080/00918369.2019.1624456>
- Meyer, I. H. (1995). Minority Stress and Mental Health in Gay Men. *Journal of Health and Social Behavior*, 36(1), 38. <https://doi.org/10.2307/2137286>
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674–697. <https://doi.org/10.1037/0033-2909.129.5.674>



- Major, B., & O'Brien, L. T. (2005). The Social Psychology of Stigma. *Annual Review of Psychology*, 56(1), 393–421. <https://doi.org/10.1146/annurev.psych.56.091103.070137>
- Meyer, I. H., Schwartz, S., & Frost, D. M. (2008). Social patterning of stress and coping: Does disadvantaged social statuses confer more stress and fewer coping resources? *Social Science & Medicine*, 67(3), 368–379. <https://doi.org/10.1016/j.socscimed.2008.03.012>
- Moe, J. L. (2016). Wellness and distress in LGBTQ populations: A meta-analysis. *Journal of LGBT Issues in Counseling*, 10(2), 112–129. doi:10.1080/15538605.2016.1163520
- Newcomb, M. E., & Mustanski, B. (2010). Internalized homophobia and internalizing mental health problems: A meta-analytic review. *Clinical Psychology Review*, 30(8), 1019–1029. <https://doi.org/10.1016/j.cpr.2010.07.003>
- Nadal, K. L., Skolnik, A., & Wong, Y. (2012). Interpersonal and Systemic Microaggressions Toward Transgender People: Implications for Counseling. *Journal of LGBT Issues in Counseling*, 6(1), 55–82. <https://doi.org/10.1080/15538605.2012.648583>
- Nadal, K. L., Whitman, C. N., Davis, L. S., Erazo, T., & Davidoff, K. C. (2016). Microaggressions toward lesbian, gay, bisexual, transgender, queer, and genderqueer people: A review of the literature. *Journal of Sex Research*, 53(4–5), 488–508. <https://doi.org/10.1080/00224499.2016.1142495>.
- Oogachaga. (2012). (rep.). Impact of Homophobia and Transphobia on LGBTQ Individuals in Singapore. Retrieved from [https://static1.squarespace.com/static/5a65ffdbf9a61e45b684f769/t/5ac632c08a922d6acb96e284/1522938567268/Homophobia\\_Transphobia\\_Summary\\_Report\\_May2012.pdf](https://static1.squarespace.com/static/5a65ffdbf9a61e45b684f769/t/5ac632c08a922d6acb96e284/1522938567268/Homophobia_Transphobia_Summary_Report_May2012.pdf)
- Outland, P. L. (2016). *Developing the LGBT minority stress measure*. Colorado State University. Libraries.
- Oswin, N. (2019). *Global city futures. Desire and development in Singapore*. University of Georgia Press.
- Ong, J. (2021, February 3). Singapore still conservative on moral, sexuality issues, but more liberal since 2002: IPS survey. *The Straits Times*. <https://www.straitstimes.com/singapore/community/singapore-still-conservative-on-moral-sexuality-issues-but-more-liberal-since>.
- Pachankis, J. E., & Goldfried, M. R. (2004). Clinical Issues in Working With Lesbian, Gay, and Bisexual Clients. *Psychotherapy: Theory, Research, Practice, Training*, 41(3), 227–246. <https://doi.org/10.1037/0033-3204.41.3.227>
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational Tools for Probing Interactions in Multiple Linear Regression, Multilevel Modeling, and Latent Curve Analysis. *Journal of Educational and Behavioral Statistics*, 31(4), 437–448. <https://doi.org/10.3102/10769986031004437>
- Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive-affective-behavioral model. *Psychological Bulletin*, 133(2), 328–345. <https://doi.org/10.1037/0033-2909.133.2.328>
- Phillips, R. (2014). “And I Am Also Gay”: Illiberal Pragmatics, Neoliberal Homonormativity and LGBT Activism in Singapore. *Anthropological* 56(1), 45–54. <https://www.muse.jhu.edu/article/544742>.
- Puckett, J. A., Levitt, H. M., Horne, S. G., & Hayes-Skelton, S. A. (2015). Internalized heterosexism and psychological distress: The mediating roles of self-criticism and community connectedness. *Psychology of Sexual Orientation and Gender Diversity*, 2(4), 426–435. <https://doi.org/10.1037/sgd0000123>

- Peltzer, K., & Pengpid, S. (2016). Minority stress among lesbian, gay, bisexual and transgender (LGBT) university students in ASEAS countries: associations with poor mental health and . *Gender and behaviours*, 14(3). <https://www.ajol.info/index.php/gab/article/view/153119>
- Pistella, J., Salvati, M., Ioverno, S., Laghi, F., & Baiocco, R. (2016). Coming-out to family members and internalized sexual stigma in bisexual, lesbian and gay people. *Journal of Child and Family Studies*, 25(12), 3694–3701. <https://doi.org/10.1007/s10826-016-0528-0>.
- Szymanski, D. M., Kashubeck-West, S., & Meyer, J. (2008). Internalized Heterosexism. *The Counseling Psychologist*, 36(4), 510–524. <https://doi.org/10.1177/0011000007309488>
- Szymanski, D. M., & Owens, G. P. (2009). Group-Level Coping as a Moderator Between Heterosexism and Sexism and Psychological Distress in Sexual Minority Women. *Psychology of Women Quarterly*, 33(2), 197–205. <https://doi.org/10.1111/j.1471-6402.2009.01489.x>
- Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. John Wiley & Sons
- Salfas, B., Rendina, H. J., & Parsons, J. T. (2019). What is the role of the community? Examining minority stress processes among gay and bisexual men. *Stigma and Health*, 4(3), 300–309. <https://doi.org/10.1037/sah0000143>
- Sun, S., Pachankis, J. E., Li, X., & Operario, D. (2020). Addressing Minority Stress and Mental Health among Men Who Have Sex with Men (MSM) in China. *Current HIV/AIDS Reports*, 17(1), 35–62. <https://doi.org/10.1007/s11904-019-00479-w>
- Tan, R., Wong, C., Chen, M., Chan, Y., Ibrahim, M., Lim, O., Chio, M., Wong, C., Chan, R., Chan, L. & Choong, B. (2018). Chemsex among gay, bisexual, and other men who have sex with men in Singapore and the challenges ahead: A qualitative study. *International Journal of Drug Policy* 61, 31-37. <https://doi.org/10.1016/j.drugpo.2018.10.002>
- Tan, R. K., O'Hara, C. A., Koh, W. L., Le, D., Tan, A., Tyler, A., ... Wong, M. L. (2020a). Social Capital and Chemsex Initiation in Young Gay, Bisexual, and Other Men Who Have Sex With Men: the Pink Carpet Y Cohort Study. <https://doi.org/10.21203/rs.3.rs-123546/v1>
- Tan, R., Kaur, N., Chen, M., Wong, C. (2020b). Developing a Typology of HIV/STI Testing Patterns Among Gay, Bisexual and Queer Men: A Framework to Guide Interventions. *Qualitative Health Research* 30(4), 610621. <https://doi.org/10.1177/1049732319870174>
- Woodford, M. R., Kulick, A., Sinco, B. R., & Hong, J. S. (2014). Contemporary heterosexism on campus and psychological distress among LGBQ students: The mediating role of self-acceptance. *American Journal of Orthopsychiatry*, 84(5), 519–529. <https://doi.org/10.1037/ort0000015>
- Woodford, M. R., Kulick, A., & Atteberry, B. (2015). Protective factors, campus climate, and health outcomes among sexual minority college students. *Journal of Diversity in Higher Education*, 8(2), 73–87. <https://doi.org/10.1037/a0038552>
- Wei, D., Wang, X., You, X., Luo, X., Hao, C., Gu, J., ... Hou, F. (2020). Prevalence of depression, anxiety and suicide among men who have sex with men in China: a systematic review and meta-analysis. *Epidemiology and Psychiatric Sciences*, 29. <https://doi.org/10.1017/s2045796020000487>
- Zubillaga-Pow, J., & Yue, A. (2012). *Queer Singapore: Illiberal Citizenship and Mediated Cultures*. Hong Kong University Press, HKU.

# **News Media Representations of Social Service Agencies in Singapore during COVID-19 Pandemic – A Corpus Linguistics Approach**

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Keywords: News, new media, COVID-19, pandemic, social service agencies, Singapore, corpus linguistics, text data analysis

## **Introduction**

This paper describes an exploratory study on how the local news media had reported on social service agencies (SSAs) in Singapore during the COVID-19 pandemic such as the type of challenges and issues experienced and the client groups they served.

### **Key Challenges Faced By SSAs in the Pandemic**

In 2021 amid the COVID-19 pandemic, the National Council of Social Service (NCSS) in Singapore put out a report titled “Emerging stronger together” which captured the spirit and vision for SSAs in this challenging journey. The report by the “Beyond COVID-19” task force (NCSS, 2021) outlined the task force’s recommendations on the strategic capabilities which the social service sector would need to build to emerge a stronger sector in the medium to long term. The recommendations were a result of several studies initiated by the task force to understand the challenges experienced by SSAs during the pandemic, including a survey with executive directors and social service professionals from the SSAs in Singapore.

In the report, five key challenges faced by SSAs were identified: First, SSAs identified digitalization and IT infrastructure to support service delivery as a challenge in sustaining operations during the pandemic. An upside is that most SSAs see digitalization as an advantage and hope to maintain their organization’s digital transformations in service delivery. Manpower issues were the second challenge highlighted by SSAs. Staff and volunteer shortages, increased workload, and difficulties with hybrid work arrangements were mentioned. Third, fundraising and funding sustainability was also a challenge for many SSAs with the survey finding that 67% of SSAs in the sample reporting a decrease in cash donations and 41% incurring a deficit in the last three months. The last two challenges involved service delivery continuity and the lack of leadership and organizational management capabilities.

These challenges faced by the SSAs caught the attention of the local news media and how the media portrays these challenges can construct public opinions to influence the role of SSAs. The aim of this study is to understand news media representations of SSAs and the challenges and issues experienced during the pandemic.

### **News Media Representations of SSAs and its Impact on SSAs**

Why are news media representations of SSAs important? Understanding news media representations of social services and social service professionals has been an area of interest in many western countries such as the United Kingdom (UK), Sweden, Ireland, and the United States (Blomberg, 2019; Cordoba, 2017; Gaughan & Garrett, 2012; Leedham, 2021; Reid & Misener, 2001; Staniforth & Beddoe, 2017; Zugazaga et al., 2006). A positive media portrayal of social services could

influence SSAs' effectiveness in service delivery and engagements (Reid & Misener, 2001), especially since most people do not often come into contact with social service professionals such as social workers and counsellors (Zugazaga et al., 2006). In Singapore, most people form their opinions or get information about SSAs through what they read or hear in online or printed newspapers, television, or word of mouth. The social work profession, for instance, has long been concerned with how it is represented in the media as this can potentially influence service effectiveness, their engagements with clients, staff retention, funding for services, and staff recruitment (Legood et al., 2016; Zugazaga et al., 2006). Media representations of the social work profession can have an impact on the conduct and professional practice of social work and influence the public esteem in which social workers are held (e.g., child protection services; Leedham, 2021). By informing and influencing the mood of public opinion, media portrayal may ultimately affect social policy concerning social services, social service professionals, and their clients. News media representations of SSAs could have an even greater impact during a crisis such as a pandemic.

### **People's Need for Orientation during a Crisis**

In times of crises, people turn to news sources because they feel the need for information to understand the causes and immediate consequences of the crisis and to know how to reach for safety (Van Aelst et al., 2021). For instance, Althaus (2002) found that in the week after the 9/11 terrorist attacks in the USA, the amount of television network audiences doubled. Several other studies on a range of acute events confirm that people turn to the news in times of crises (see Van Aelst et al., 2021). The role of the news media is vital in crises because it can fill people's needs with immediate and relevant information.

Depending on the nature of the crisis, the news media can fulfil different functions. For sudden and acute events like natural disasters, people turn to news sources to get guidance on safety. For slower developing events like economic crises or pandemics, people desire news to understand the causes and long-term consequences for society (Van Aelst et al., 2021). The COVID-19 pandemic, scholars such as Van Aelst et al. (2021) had argued, created a need for both: people were anxious to know about the immediate dangers of this fast-spreading threat; there was also a surge in the need to know how the virus and its public health measures were impacting the society and the actions to mitigate the impact. This need among people for orientation in times of crises is explained in a concept in media studies known as the "need for orientation" (Van Aelst et al., 2021). In particular, people's need for orientation would surge if the crisis was perceived to be of high relevance and high uncertainty.

This need for available and immediate information, according to media systems dependency theory (Ball-Rokeach, 2010), is generally perceived as best satisfied by the mass media because it offers speed of transmission and structural connectedness to "expert" sources of information (Van Aelst et al., 2021). In other words, the news media is perceived as important by people as they are seen as a reliable source for swift and accurate expert information, especially in times of high uncertainty and unrest. In the COVID-19 pandemic, uncertainty about the virus and the health and socioeconomic consequences can trigger anxieties that people try to cope with by seeking for sense-making information and guidance by relying more than usual on local news media sources.

### **Aims of the Study**

Since the beginning of the COVID-19 pandemic, journalists in Singapore have shifted to a health crisis mode of news coverage. The COVID-19 pandemic in Singapore had been addressed and written about from almost every possible angle: family life, parenting, education, social welfare, health, economics, science, public health, sports, and even celebrity news. Given the scale of impact of COVID-19 in Singapore, this paper explored how local news media had reported about SSAs in Singapore during the COVID-19 pandemic. I took a broad descriptive approach in understanding the representations of

SSAs in the news during the pandemic rather than on specific cases or critical discourse analysis of the role of SSAs. This study used a methodology of corpus linguistics, that is, computer-based empirical analyses of language use by employing large collections of written text (Leedham, 2021), to quantitatively answer the following questions:

1. What was the average amount of news on SSAs every month during the COVID-19 pandemic?
2. What words and parts-of-speech such as verbs and adjectives were used in the news during the pandemic?
3. What news topics about SSAs garnered more news attention during the pandemic?
4. What client groups were featured in the news on SSAs during the pandemic?

## Method

The analyses used a collection of text data from a total of 1,095 English-language newspaper articles published in the three main news sources in Singapore: The Straits Times, Today, and Channel NewsAsia. This section explains the process of building the corpus. Further descriptions on preprocessing and analyzing the text are in the appendix. Codes for replication are provided at [https://github.com/gerardchung/ssa\\_covid\\_news](https://github.com/gerardchung/ssa_covid_news).

### Building the Corpus

The online database of newspapers in Nexis Uni was used to search for any print and online articles based on the following inclusion criteria: (1) published up to one year *before* 1<sup>st</sup> February 2020 (date of the first article published about COVID-19 in Singapore) and up to December 2021 (a period of three years from 2019 to 2021), (2) contained key phrases such as “social service\*”, “community service\*”, or “voluntary welfare” in the title or anywhere in the article, (3) Singapore-based news (i.e., news of COVID-19 not about Singapore are excluded), and (4) published in the English language.

The initial search produced 1,435 articles. Based on the inclusion criteria and the removal of duplicates, the total number of articles was reduced to 1,095 (325 articles in the pre-COVID-19 period defined as one year before 1<sup>st</sup> Feb 2020; 770 articles in the COVID-19 period up to December 2021). Text from each article was also tokenized at sentence-level and only those sentences that contained at least one of the key phrases were extracted. This produced a corpus comprising of 1,993 sentences out of the set of 1,095 news articles.

# Findings

## Q1. What was the average amount of news on SSAs every month during the COVID-19 pandemic?

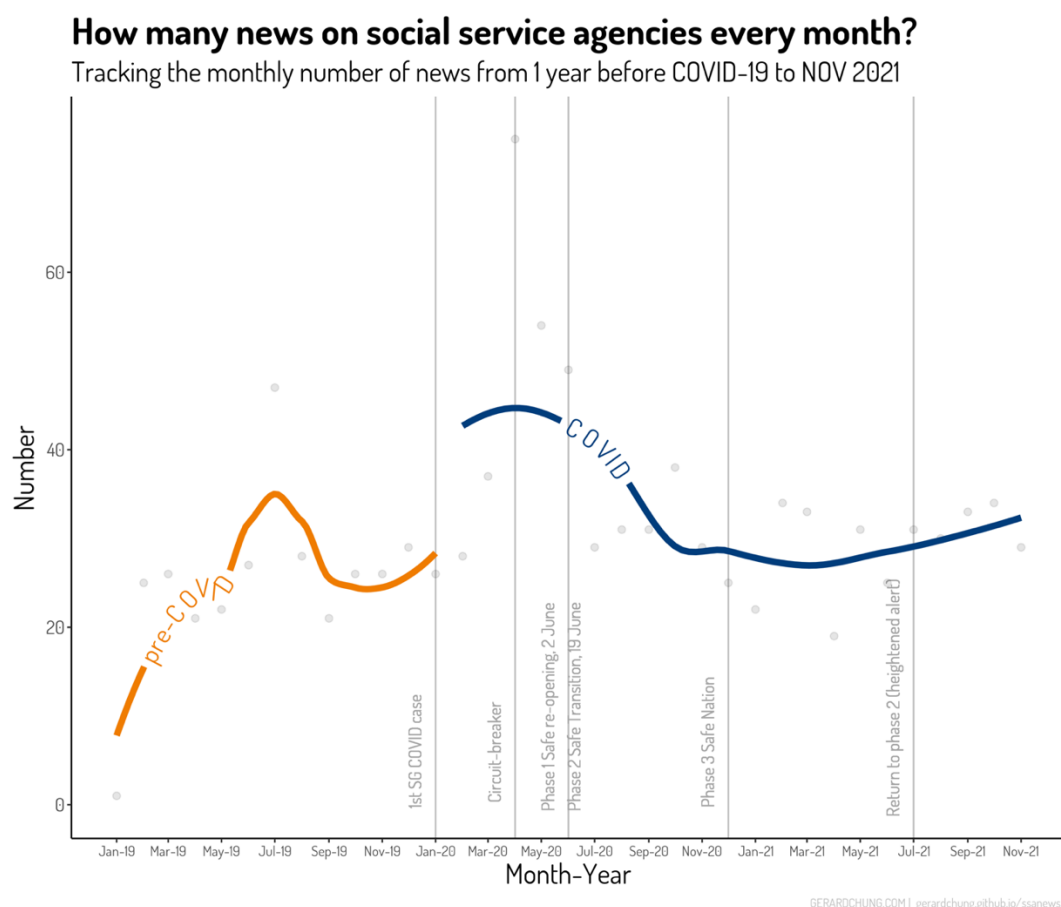


Figure 1: Number of news every month

### ***Increase in news on SSAs during the pandemic compared to pre-pandemic.***

The number of news articles that mentioned “social service agencies” increased considerably from January 2020 after the first case of COVID-19 was detected in Singapore. As shown in Figure 1, this trend tapers off with the ending of the “Circuit-breaker” partial lock-down in June 2020 and with the transition into Phase 1 Safe-reopening. The monthly number of news then showed a decreasing trend from Phase 2 Safe Transition to Phase 3 Safe Nation. But with the return to Phase 2 (heightened alert) in July 2021, local media attention on SSAs picked up again and the number of news articles showed an increasing trend up to November 2021.

These trends clearly show that the amount of media attention on SSAs was related to the tightening or loosening up of public safety measures for COVID-19. Despite the changing trends, subsequent calculations found that the average number of news published on SSAs every month was significantly higher<sup>1</sup> during the pandemic period (*mean*,  $M = 33$ , standard deviation,  $SD = 14$ ) compared to the pre-pandemic period ( $M = 25$ ,  $SD = 10$ ). This is equivalent to almost a 32% increase in the amount of news on SSAs published during the pandemic relative to pre-pandemic. I also examined the number of sentences mentioning SSAs in each article and found that on average, the number of sentences per article mentioning SSAs is significantly higher<sup>2</sup> during the pandemic ( $M = 63$ ,  $SD = 34$ ) than in pre-pandemic ( $M = 42$ ,  $SD = 21$ ). Certainly,

<sup>1</sup> Non-parametric Wilcoxon signed-rank test indicated that this difference is statistically significant ( $p = .008$ )

<sup>2</sup> Non-parametric Wilcoxon signed-rank test indicated that this difference is statistically significant ( $p = .02$ )

counting the number of news articles each month or the number of sentences in each article are not the most accurate metrics to assess the media influence of news. But increased reporting within a short period or a clustering of references to SSAs are likely to leave a stronger impression of SSAs on the newsreaders.

In a crisis like the COVID-19 pandemic where there is high uncertainty and wide-ranging effects, people's need for information to understand the effects of the event and to know how to seek for help becomes greater. In later sections, I found that most of the news during the pandemic helped readers to know the kinds of help available and how to access the services offered by SSAs (e.g., essential services and help hotlines). Hence, there was an increase in the media attention given to SSAs because of the high media value of such news, which helped to meet readers' "needs for orientation" during a crisis.

## Q2. What words and parts-of-speech such as verbs and adjectives were used in the news during the pandemic?

### What words were used more in the news during COVID-19?

Top 10 words that increased in use during COVID-19 compared with pre-COVID-19

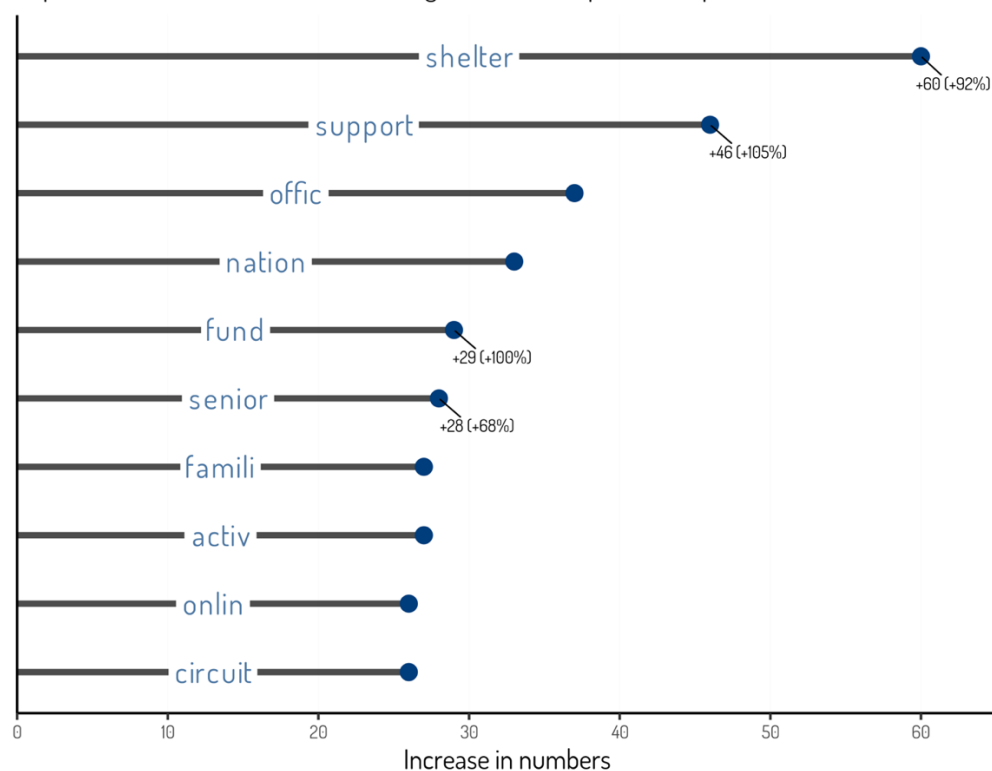


Figure 2: Word stems used more during pandemic

***“Shelter\*”, “support\*”, “fund\*”, and “senior\*” word stems were used more in news during the pandemic.***

To identify the words that increased in use during COVID-19, the number of times that words<sup>3</sup> appeared in the news were compared between the pandemic and the pre-pandemic period. Every word in the corpus was first reduced to its linguistic root form using word stemming (e.g., “families” and “family” will be reduced to “famili”; “addiction” and “addicted” to “addict”). Subsequently, each word stem's frequency in the corpus was calculated. Figure 2 shows that word stems such as “shelter”, “support”, “fund”, “senior”, and “famili” (e.g., supporting, supportive, funds, funding, senior citizens, families) were used more

<sup>3</sup> More accurately, I generated and analyzed n-grams phrases (1 to 3-grams; e.g., senior, activity, activity\_centre, senior\_activity\_centre) since n-grams better capture semantic contexts than single words (i.e., 1-gram). For instance, “domest\_worker”

during the pandemic compared to the pre-pandemic period. The increase for “shelter”, “support”, and “fund” was close to 100% more during the COVID-19 period relative to the pre-pandemic period.

## What words were used lesser in the news during COVID-19?

Top 10 words that decreased in use during COVID-19 compared with pre-COVID-19

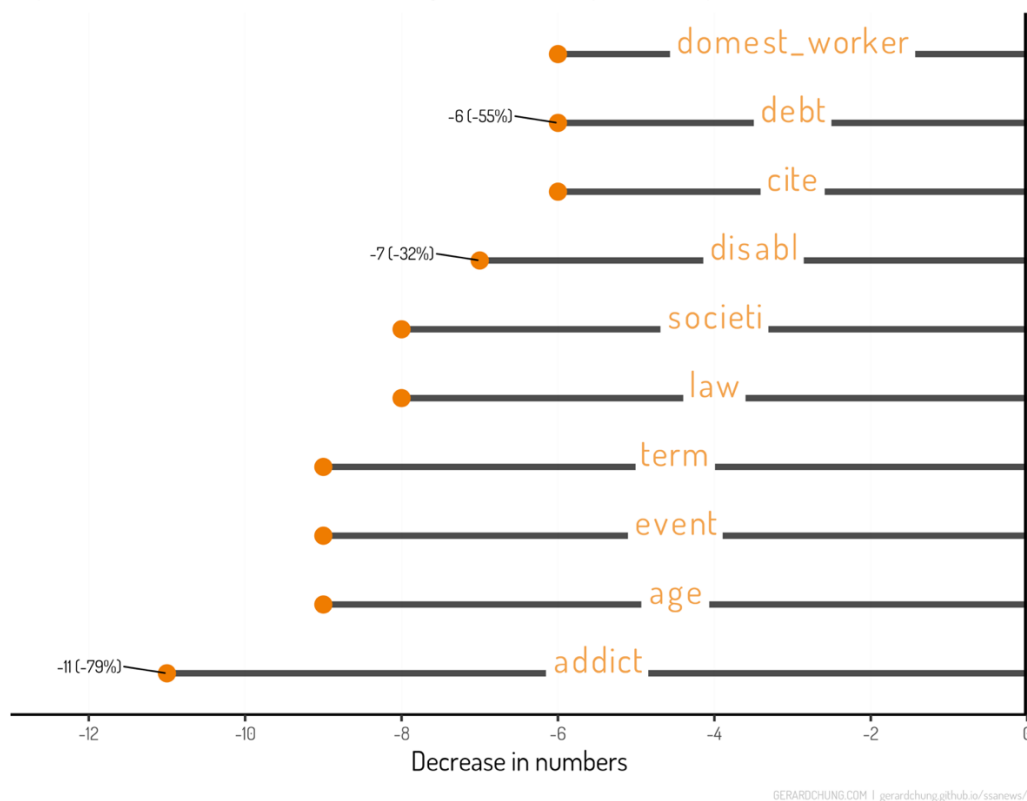


Figure 3: Word stems used lesser during pandemic

On the other hand, some keywords were used lesser in the news on SSAs during the pandemic. In Figure 3, words related to word stems such as “addict” (e.g., addictions, addicted addicts), “disabl” (disability, disabled), “debt”, and “domest\_worker” were less used in news during the pandemic compared to the pre-pandemic period. Notably, the word stem “addict” had a 79% decrease in use during the pandemic indicating that less references were made of addiction in the context of news on SSAs. These results are again found in the next section where I examined the topics of the news.

### ***Verbs and adjectives that were used more in SSA news during the pandemic.***

A more informative way to understand how words are used in newspaper text is to tag each word in accordance with a particular part of speech (POS). In the English language, some of the main POS are adjectives and verbs. In this analysis, I used the Universal tagset for POS tagging and only tagged adjectives and verbs.



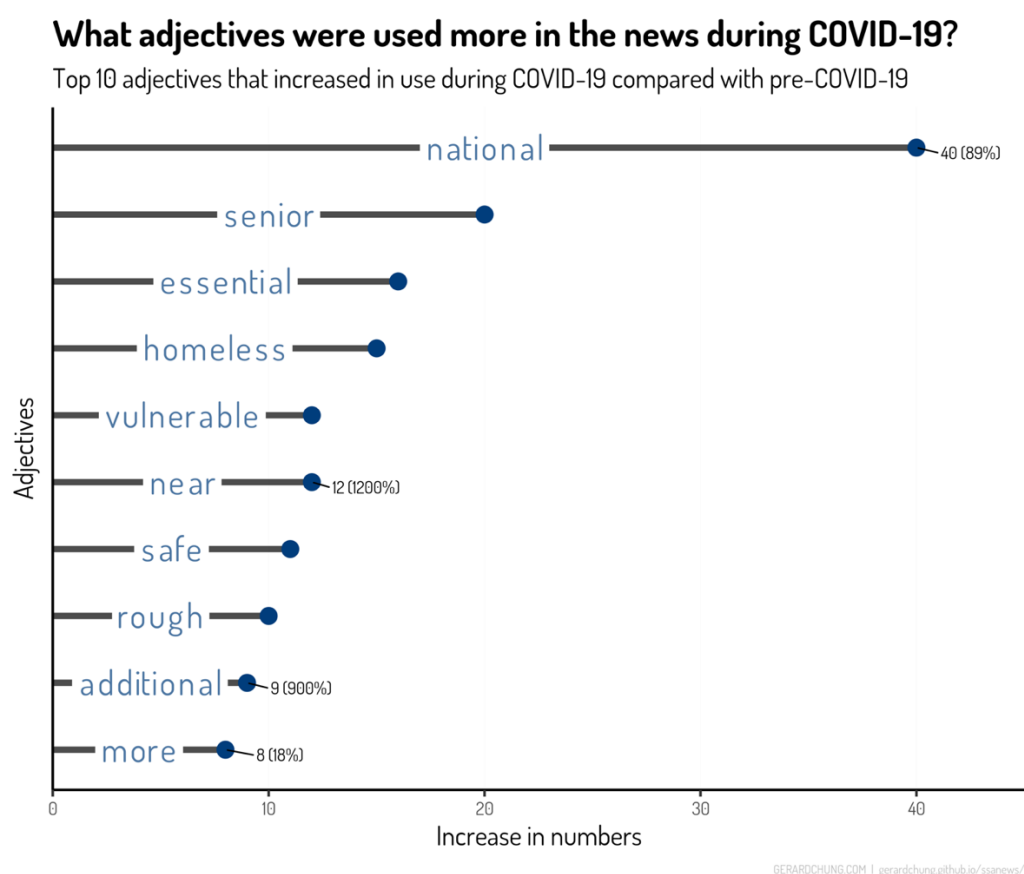


Figure 4: Adjectives used more during pandemic

From Figure 4, we see that the adjectives (i.e., words that describe an attribute of a noun) that increased in news usage during the pandemic period include “national” and “essential”. Subsequent investigations indicate that the “national” adjective often refers to national entities such as *National* Council of Social Services or *National* Care Hotline while “essential” often refers to “essential aid” or “essential services”. Other popular adjectives used in the news described client groups. These include “senior”, “homeless”, “vulnerable”, and “rough” (e.g., rough sleepers). The three adjectives “near”, “additional”, and “more” were often used to describe social service delivery and availability such as “*nearest* family service centre”, “*additional* funding”, and “*more* support for families”.

## What verbs were used more in the news during COVID-19?

Top 10 verbs that increased in use during COVID-19 compared with pre-COVID-19

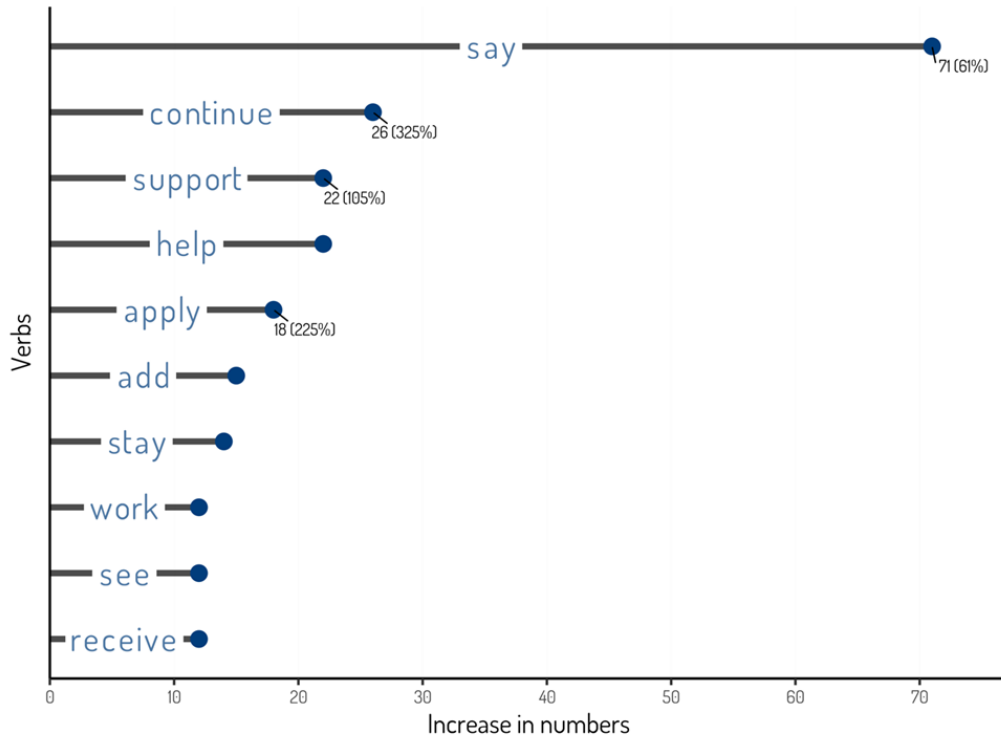


Figure 5: Verbs used more during pandemic

Verbs convey action. Thus, tagging words to verbs can help us to understand what actions were often referred to in the news on SSAs. The popular verb “say” was frequently used to quote or cite SSAs or social service practitioners when interviewed by journalists for their views of specific social issues (“social service agencies say the greatest need is tackling the isolation faced by vulnerable groups like the elderly”). In the next section, results showed that the “expertise of SSAs” was a popular news topic in news on SSAs. Other verbs (“continue”, “support”, “help”, “apply”) that increased in use during the pandemic referred to help schemes and services that families and individuals can use to cope in the pandemic.

### Q3. What news topics about SSAs garnered more news attention during the pandemic?

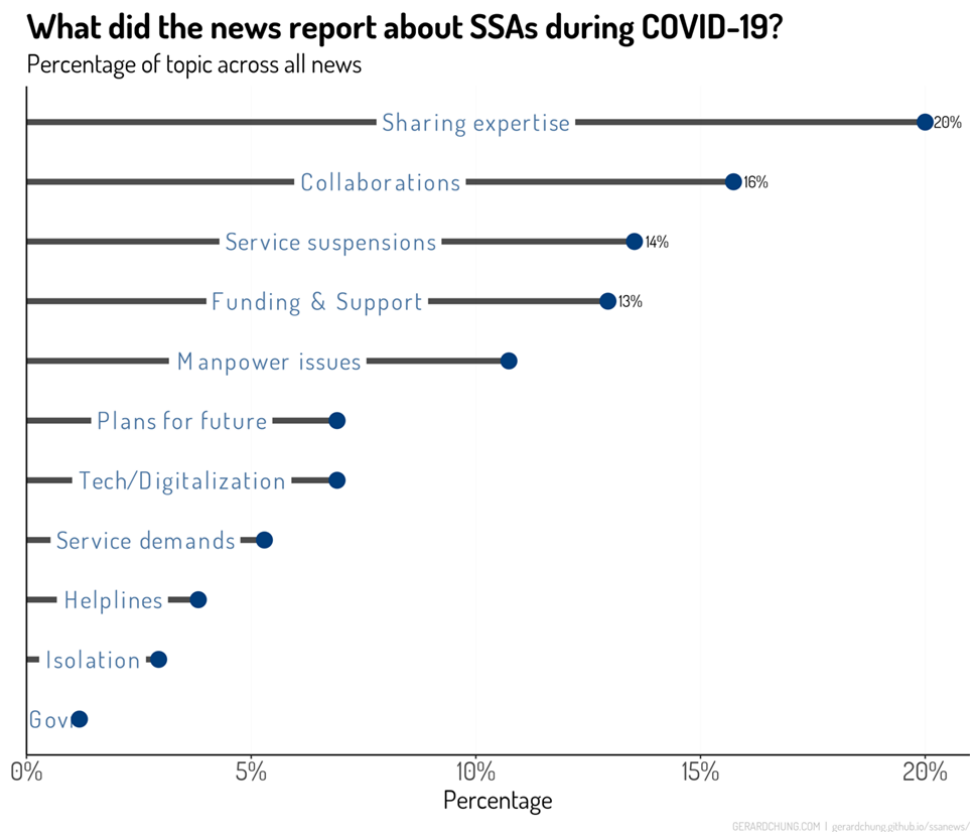


Figure 6: New topics percentages during pandemic

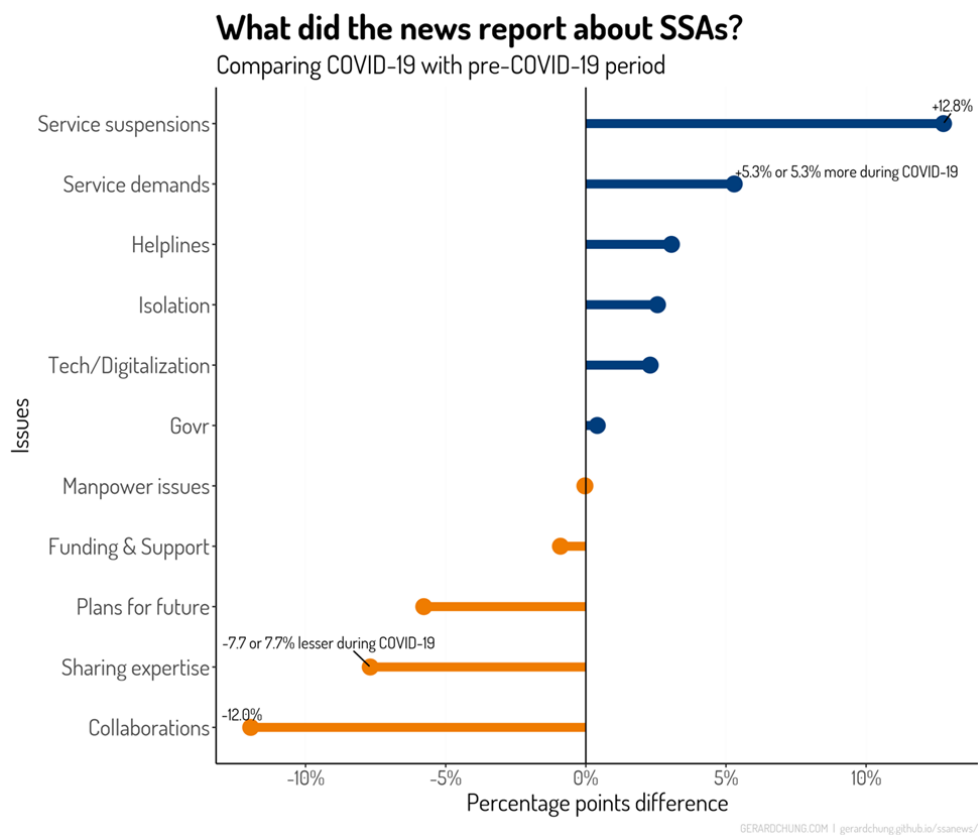


Figure 7: New topics percentages comparing pandemic and pre-pandemic

***News during the pandemic gave more attention to SSAs' expertise role, collaborations, service suspensions, and funding.***

To understand what news topics were reported on SSAs, I manually read 1,470 sentences (from 829 articles or 75% of the corpus) and categorized news topic(s) for every instance. The classification was guided by existing studies that used qualitative thematic approaches to analyze news portrayal of social services (e.g., Leedham, 2021; Blomberg, 2019).

Figure 6 shows that the most prevalent topic reported about SSAs in the news during the pandemic was focused on the expert role of SSAs. Instances of this include news citing social service professionals' opinions and knowledge about a social problem ("social service agencies and befriending services told The Straits Times they are worried about the elderly like Mr Yuen during the pandemic"). Other news reported about social service professionals offering their expertise as members of task forces to tackle social problems in the community such as family violence. This media emphasis on the expert role of SSAs in Singapore contrasts with a recent study in Australia that found that the majority of news media content relating to social work did not cite social workers, concluding that there is an absence of social workers from the public image of the profession (Cordoba, 2017).

Another prevalent news topic during the pandemic was the collaborations of SSAs with other stakeholders such as governmental agencies, corporate organizations, or the community. Besides participating in task forces, SSAs are also frequently reported in the news to be actively involved in collaborations to tackle diverse social issues including marriage preparations, poverty, ageing, family violence, and even neighbours' disputes ("feuding neighbours living in Bukit Merah will be linked by a neighbourhood police centre to a social service agency at an early stage before the dispute escalates and ends up in court"). SSAs were often cited by the news on their desire to collaborate with the community (e.g., "neighbours can serve as the first line of help for people with hoarding problems, alerting social service providers to issues, Ms Goh said, adding: "we cannot do this alone.").

The remaining topics reported in the news on SSAs were similar to the reported challenges described in the "Emerging stronger together" report by the Beyond COVID-19 task force. The COVID-19 pandemic and public health measures including the "Circuit-breaker" partial lock-down had led to challenges in service delivery for SSAs that include service suspensions, restrictions to services leading to higher service demands, funding difficulties, and manpower issues such as reduced staff hiring and volunteers, social service professionals' burnt-out and mental health issues. A recent survey with frontline social workers from various SSAs across Singapore found that during this pandemic, a high percentage of social workers experienced symptoms related to depression, anxiety, and stress (Seng et al., 2021).

When the percentage prevalence of topics during the pandemic period was compared to the pre-pandemic period (see Figure 7), it was, therefore, not surprising to see that relative to the pre-pandemic period, there was a large increase in percentage points for topics such as "service suspensions", "service demands", "helplines" (e.g., National Care Hotline), and digitalization in SSAs. However, it was surprising to find that there was lesser focus on SSAs' role of expertise, collaborations, and future development plans for the sector during the pandemic relative to the pre-pandemic period. Though this study cannot adequately explain this, one possible explanation is that with the ongoing pandemic, journalists gave more editorial space to reporting news (e.g., service disruptions) on the immediate effects of the pandemic which had more media value. It is also possible that due to service suspensions or restrictions in the social service sectors, this resulted in fewer opportunities for SSAs to engage in collaborations and partnerships during the pandemic.

### **Balanced or mostly positive portrayals of SSAs.**

Overall, the news on SSAs during the pandemic has been mostly neutral or positive about the image or role of SSAs. While news on service suspensions or manpower issues may create public images of a social service-in-crisis, the majority of the news continue to emphasize the continued presence and the expertise of SSAs, their ongoing collaborations with stakeholders to tackle social issues, the availability of help despite restrictions (e.g., National CARE hotline and essential services), and funding support (e.g., NCSS's Invictus pandemic fund) for SSAs to continue to deliver critical services. The media portrayal of SSAs in Singapore seem to be more balanced in presenting an image of the negative as well as the positive things that happen in the social service sectors. This has not been the case in other countries such as Sweden (Blomberg, 2019) where "social service-in-crisis" was the dominant theme in media portrayal of SSAs. Or such as in the UK where an analysis of 2,000 news articles of social services and social workers found them to be "overwhelmingly negative and critical". (Franklin, 1998, p. 5)

#### **Q4. What client groups were featured in the news on SSAs during the pandemic?**

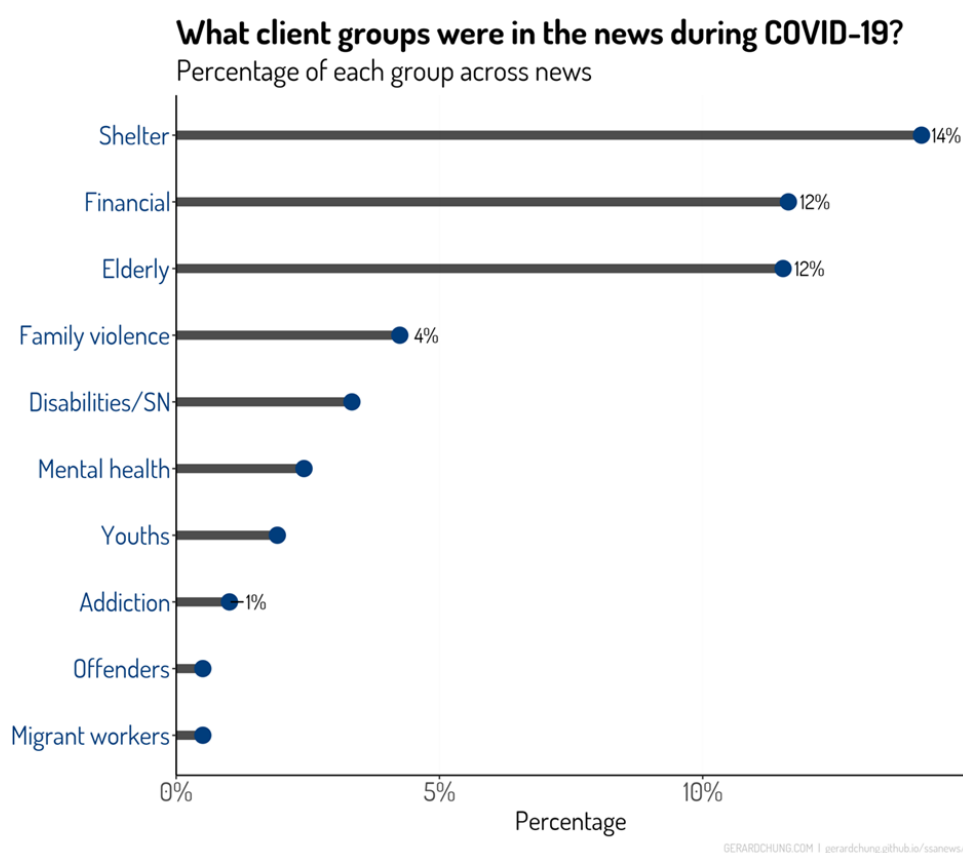


Figure 8: Client groups in news during pandemic

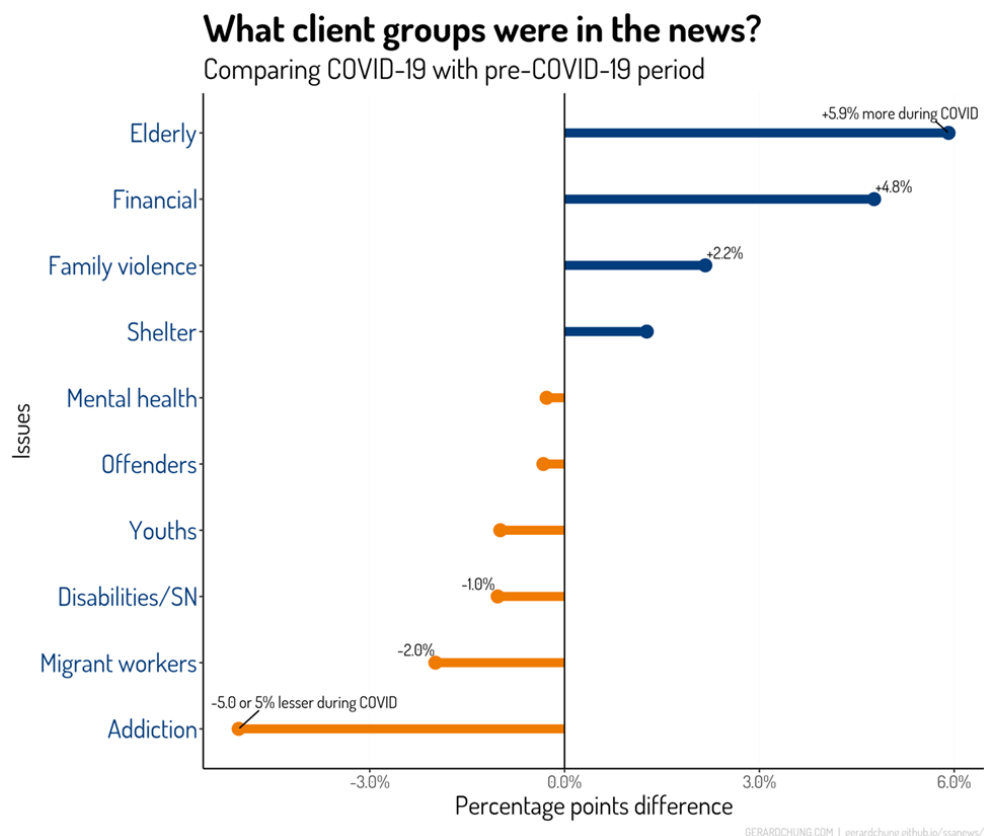


Figure 9: Client groups in news comparing pandemic and pre-pandemic

#### ***Client groups reported in the news during COVID-19.***

In Figure 8, clients with financial difficulties, those with shelter needs such as rough sleepers, and elderly persons were the three client groups that were featured the most in the news during the pandemic. These three groups together garnered almost 40% of the news focus. Comparing these results with the pre-pandemic period give us additional insights (see Figure 9). First, the three client groups increased in news focus during the pandemic when compared to pre-pandemic. Elderly persons and those experiencing financial difficulties had about 5 to 6% more attention in the news. Second, family violence had an increase of 2% compared to the pre-pandemic period. The risk for family violence was higher during the pandemic because as some studies in Singapore had found, there were increased marital conflicts, higher parenting stress, and increased use of harsh parenting during the pandemic (Chung, Chan, et al., 2020; Chung, Lanier, et al., 2020).

Third, persons with addictions, those with mental health issues, youths, migrant workers, and persons with disabilities or special needs had the least media attention in news on SSA during the pandemic. This was even lesser relative to the pre-pandemic period. In Singapore, the prevalence rate of persons with disabilities ranges from 2.1% to 13.3% depending on the age category of the population group (Ministry of Family and Social Development, 2018). The COVID-19 pandemic has the potential to significantly increase the daily challenges of people with disabilities and may have a greater impact compared to the general population. Partial lockdowns such as the Circuit-breaker and social distancing measures can also be risky for the development of individuals' mental health issues. Substance use and addictive behaviours (e.g., overeating, gambling, alcohol) may increase as ways to cope with the stress, isolation, and anxiety wrought by the pandemic. I note that the smaller media attention given to these client groups in news about SSAs does not imply that SSAs did not engage these groups. Instead, the needs of these groups were not as publicized in the news on SSAs during the pandemic. Proactive media strategies should be considered by SSAs to improve public attention to these needs, to the appropriate services and to the role of SSAs in engaging these client groups.

Finally, the many client groups represented in the news – both in the pre-pandemic and pandemic period – represent the complexity of issues and the diverse client groups that SSAs in Singapore engage with and deliver services to. This challenges the conclusions present in other literature of other countries suggesting that media news were mostly focused on social services working with children, particularly of children in child protection situations (e.g., Leedham, 2021).

## Discussion

What are the key findings from this analysis of news on SSAs in Singapore during the pandemic?

- A significant increase (+32%) in the number of news on SSAs during the pandemic.
- Increase in the use of words related to “shelter”, “support”, “fund”, “famili” and “senior”.
- Increase in the use of adjectives that describe national entities (“National”; e.g., NCSS or National Care hotline), that describe client groups (“senior”, “homeless”, “vulnerable”), and those that describe accessibility to/availability of services (“more”, “near”, “additional”).
- Increase in the use of verbs that describe actions about how client groups can access services and help given by SSAs (“apply”, “continue”, “help”, “support”, “receive”) and verbs related to the “voice” of social service professionals that demonstrate their expertise (“say”).
- News topics about SSAs during the pandemic include service suspensions and restrictions, funding matters, manpower issues (staff recruitment, staff burnt-out, volunteers), and the digitalization of service delivery.
- Two news topics with the highest prevalence were SSAs’ expertise role and collaborations with other stakeholders. Though, relative to pre-pandemic, these two topics were given lesser focus during the pandemic.
- Client groups with financial difficulties, shelter needs, and senior citizens were the three most featured groups garnering almost 40% of the news’ attention during the pandemic.
- Clients with addictions, mental health issues, and disabilities or special needs had the least news attention during the pandemic. This was also lesser compared to the pre-pandemic period.
- The many client groups represented in the news represent the complexity of issues and diverse client populations that SSAs engage with.

For many Singaporeans and residents living here, the local news are significant sources of information on the role of SSAs. The proliferation of online media opens up more opportunities for readers to access this news. News media are seen as a reliable source for fast and accurate expert information, particularly in times of high uncertainty. During the pandemic where there was high uncertainty about its development and effects, individuals’ need for information about SSAs becomes even more relevant and critical to make sense of the situation and to get guidance for help. What this study found is that the news media had uplifted the role of SSAs as experts to be trusted in times of anxiety. And despite the challenges, SSAs continued to provide critical services to diverse client groups, particularly those with financial difficulties or shelter needs, and the elderly. While news on service suspensions and manpower problems represented an image of social service-in-crisis, this was also balanced with positive news of SSAs such as new funding support for SSAs, expertise of SSAs, active collaborations, continuity of essential services, ongoing efforts to digitalize services, as well as future plans to develop the social service sector to meet future challenges.

News media and their journalists play an important role in shaping public opinions and understanding of the role of SSAs in Singapore. This has one important implication for SSAs. SSAs can consider a more proactive media strategy to promote its image and services, not merely for the sake of improving its profile, but to improve engagement with clients, service delivery as well as to advocate for the needs of clients. The media's positive representations of SSAs can influence public acceptance of social service practices, improve social service professionals' job esteem and their engagements with clients and colleagues (Legood et al., 2016). This, consequently, can affect people's interests in joining the profession and also staff retention in the social service sectors. Negative portrayals of SSAs might affect clients' motivations in using social services, especially in times of crises where people who need help have to trust in the SSAs. In this pandemic, the smaller media attention given to client groups such as people with addiction problems, those with disabilities, and those with mental health issues can limit public awareness and consequently, support for these groups. It might also reduce their willingness to get help.

### **What does a proactive media strategy look like?**

This may include considering the material interests of news media companies, understanding the process of news creation, and building relationships with news journalists (Cordoba, 2017)<sup>4</sup>. Knowing what social service professionals think about public perceptions is also important. To my best knowledge, no study in Singapore has looked at how social service professionals experience public perception. One study in the UK interviewed social workers and they recommended that more needed to be done actively to identify and utilise success stories, and provide a more accurate insight into the role and the extensive training of those in the profession (Legood et al., 2016). A future study should be conducted to understand how social service professionals here experience public perception and explore what are the ways to promote SSAs and social service profession in Singapore. Brawley and Martinez-Brawley (1982)'s paper on teaching social workers to use the news media for public education purposes is old but remains a useful guide. They suggest that SSAs can take the initiative to establish contact with journalists to form a relationship for future productive communications. Social service professionals can learn to write press releases that journalists can then take and easily write the actual news. Beside news, online podcasts and forums, the radio, television shows, magazines, and editorials are also good avenues to comment on social issues, talk about their services, or to advocate for client groups. The belief is that SSAs and social work practitioners can and should play a public education role in the context of their own practice.

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<sup>4</sup> The National Association of Social Workers (NASW) in the US has often been cited as a case study of a successful proactive media approach where NASW developed the NASW's National Communications Network and the SocialWorkersSpeak.org website. For many years, NASW has actively developed and maintained positive relationships with the media through different initiatives such as media monitoring, providing consultation, industry awards, and support for filmmakers and journalists.



# Appendix

## Preprocessing the Text

The text was preprocessed before executing any analysis. Text preprocessing is important in preparing the textual data for any computations<sup>5</sup>. I removed punctuation and numbers, converted all letters to lower case, and stemmed words by removing all prefixes and suffixes to reduce all the words to their root words (e.g., “talking” & “talks” become “talk”; addiction, addicted, & addicts become addict). Stop words (e.g., “and,” “the,” and “is”) were also removed from the corpus because they do not contribute to words’ contextual meanings or the identification of topics.

In a “bag of words” approach in text-as-data analysis, words are analyzed as individual units, and their relationships to sentiments or to documents are examined. However, text-as-data analyses can also be based on the relationships between words, whether examining which words tend to follow others immediately, or that tend to co-occur within the same documents. N-grams is a technique in natural language processing (NLP) that can be used to investigate these neighbouring sequences of words in a document or sentence. N-grams are contiguous sequences of  $n$  items from a given sample of text. In this study, I used up to 3-grams allowing the analysis to capture up to a window of 3 words in a sequence (e.g., circuit\_breaker, senior\_activity\_centres; national\_help\_hotline).

Tokenization is another technique in NLP where words or text features are represented as numbers so that quantitative computations can be done. Depending on the specific analysis, the raw text in this study is either tokenized as words/N-grams or as sentences. Parts of speech (POS) using the Universal tagset for POS in the SpacyR package in R was also used to tag words to whether it is an adjective or a verb.

Additional preprocessing was done depending on the unique characteristics of the corpus. For instance, I converted all variations of COVID-19-related phrases (e.g., COVID, COVID19, coronavirus) to COVID19 for standardization. For certain analyses, the phrases “social service agencies”, “voluntary welfare organizations, and “community service agencies” were removed from the corpus because these phrases described a shared context for all the articles and thus would not contribute to answering the research questions.

All text pre-processing and analyses were done in the R statistical software using the quanteda, spacyr, and tidytext packages. Visualizations were done with the ggplot package. Data cannot be publicly shared because of the intellectual property restrictions stipulated by Nexis Uni. All codes and detailed descriptions on downloading the data from Nexis Uni are provided at [https://github.com/gerardchung/ssa\\_covid\\_news](https://github.com/gerardchung/ssa_covid_news).

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<sup>5</sup> See discussion on text preprocessing in Chung, G., Rodriguez, M., Lanier, P., & Gibbs, D. (2021, May 11). Text-mining open-ended survey responses using structural topic modeling: A practical demonstration to understand parents’ coping methods during COVID-19 pandemic in Singapore. <https://doi.org/10.31219/osf.io/enzst>

## References

- Althaus, S. L. (2002). American News Consumption during Times of National Crisis. *PS: Political Science and Politics*, 35(3), 517–521. JSTOR.
- Ball-Rokeach, S. J. (2010). Media System Dependency Theory. In *The International Encyclopedia of Communication*. John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781405186407.wbiecm051>
- Blomberg, H. (2019). “We’re not magicians!” On the use of rhetorical resources in Swedish news media narratives portraying the social services and social workers. *Qualitative Social Work*, 18(2), 229–246. <https://doi.org/10.1177/1473325017710324>
- Brawley, E. A., & Martinez-Brawley, E. E. (1982). Teaching Social Work Students to Use the News Media for Public Education Purposes. *Journal of Education for Social Work*, 18(2), 76–83. <https://doi.org/10.1080/00220612.1982.10778578>
- Chung, G., Chan, X. W., Lanier, P., & Ju, P. W. Y. (2020). *Associations Between Work-Family Balance, Parenting Stress, and Marital Conflicts During COVID-19 Pandemic in Singapore* [Preprint]. Open Science Framework. <https://doi.org/10.31219/osf.io/nz9s8>
- Chung, G., Lanier, P., & Wong, P. Y. J. (2020). Mediating Effects of Parental Stress on Harsh Parenting and Parent-Child Relationship during Coronavirus (COVID-19) Pandemic in Singapore. *Journal of Family Violence*. <https://doi.org/10.1007/s10896-020-00200-1>
- Cordoba, P. S. (2017). Representations of Social Work in the Australian News Media. *Australian Social Work*, 70(4), 453–464. <https://doi.org/10.1080/0312407X.2017.1324886>
- Franklin, B. (1998). *Hard Pressed*. The Manson Group, Reed Business Information.
- Gaughan, L., & Garrett, P. M. (2012). The ‘most twisted and unaccountable force in the state’? Newspaper accounts of social work in the Republic of Ireland in troubled times. *Journal of Social Work*, 12(3), 267–286. <https://doi.org/10.1177/1468017310383269>
- Leedham, M. (2021). ‘Social Workers Failed to Heed Warnings’: A Text-Based Study of How a Profession is Portrayed in UK Newspapers. *The British Journal of Social Work*, bcab096. <https://doi.org/10.1093/bjsw/bcab096>
- Legood, A., McGrath, M., Searle, R., & Lee, A. (2016). Exploring How Social Workers Experience and Cope with Public Perception of Their Profession. *British Journal of Social Work*, 46(7), 1872–1889. <https://doi.org/10.1093/bjsw/bcv139>
- Ministry of Family and Social Development. (2018, November 19). *Total number of persons with disabilities in Singapore*. Media Room. <https://www.msf.gov.sg/media-room/Pages/Total-number-of-persons-with-disabilities-in-Singapore.aspx>
- National Council of Social Services. (2021). *Emerging Stronger Together—A Guide Beyond COVID-19*. National Council of Social Services. <https://www.ncss.gov.sg/docs/default-source/ncss-publications-doc/pdfdocument/emerging-stronger-together-guide.pdf>
- Reid, W. J., & Misener, E. (2001). Social work in the press: A cross-national study. *International Journal of Social Welfare*, 10(3). <https://doi.org/10.1111/1468-2397.00172>

- Seng, B. K., Subramaniam, M., Chung, Y. J., Syed Ahmad, S. A. M., & Chong, S. A. (2021). Resilience and stress in frontline social workers during the COVID-19 pandemic in Singapore. *Asian Social Work and Policy Review*, 15(3), 234–243. <https://doi.org/10.1111/aswp.12237>
- Staniforth, B., & Beddoe, E. (2017). Five years in the news: A media analysis of Child, Youth and Family in two daily newspapers (2008–2012). *Aotearoa New Zealand Social Work*, 29(4), 5–18. <https://doi.org/10.11157/anzswj-vol29iss4id382>
- Van Aelst, P., Toth, F., Castro, L., Štětka, V., Vreese, C. de, Aalberg, T., Cardenal, A. S., Corbu, N., Esser, F., Hopmann, D. N., Koc-Michalska, K., Matthes, J., Schemer, C., Sheafer, T., Splendore, S., Stanyer, J., Stępińska, A., Strömbäck, J., & Theocharis, Y. (2021). Does a Crisis Change News Habits? A Comparative Study of the Effects of COVID-19 on News Media Use in 17 European Countries. *Digital Journalism*, 9(9), 1208–1238. <https://doi.org/10.1080/21670811.2021.1943481>
- Zugazaga, C. B., Surette, R. B., Mendez, M., & Otto, C. W. (2006). SOCIAL WORKER PERCEPTIONS OF THE PORTRAYAL OF THE PROFESSION IN THE NEWS AND ENTERTAINMENT MEDIA: AN EXPLORATORY STUDY. *Journal of Social Work Education*, 42(3), 621–636. <https://doi.org/10.5175/JSWE.2006.200500502>

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Venue: Online (Zoom)

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Keynote Speaker: Dr. Gerard Ee, Chairman (AIC)

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Panel 2: Mitigating the effects of COVID-19 on the well-being of the youth and elderly

Panel 3: Digital inclusion in COVID-19 times and beyond

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