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Shifts in Help-seeking Patterns During COVID-19: Should Social Distancing be Rebranded?

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Abstract

Much focus has been placed on mental health symptoms brought forth by the COVID-19 pandemic, yet limited discourse & evidence have evaluated how the closure of multiple venues under social distancing measures impacted people’s patterns of help-seeking, which had traditionally been the very coping mechanism that buffered individuals from the consequences of those studied symptoms.

Using a two-wave (June-July 2019 and June-September 2020) panel data on youths aged 11-35 years old, the present study shows that under social distancing, a significant proportion of individuals who used to rely on their strong ties for support no longer sought help even after controlling for stress level changes & sociodemographic factors, and only those who were facing heavier distress ended up seeking their strong ties for support.

By simply closing off social contexts that had traditionally facilitated social support provision among strong ties and not providing people with alternative contexts, current social distancing measures appeared to have effectively increased the difficulty for many to receive social support, thereby leaving them vulnerable to mental health impacts of the pandemic. To prevent the current pandemic from turning into a mental health pandemic, the mantra “social distancing” should be revised to encourage society to remain socially close even while physically distant.

Keywords — help-seeking pattern; social support; youths; stressors; perceived distress; social distancing
Introduction

One’s social network is inextricably linked to their mental health, chiefly due to the intrinsic social support and social integration that it provides them with [1, 2, 3, 4]. While numerous studies over the years have reliably established that these two factors protect individuals from suicidal behaviours and other adverse mental health outcomes [2, 5], it is also widely understood that the individual themselves needs to activate their social network ties in order to derive these forms of support [2, 6, 7], i.e., to actively seek help from their relationships.

From a social capital perspective, this can be explained with the concept of bonding social capital [8]: People need to invest their time engaging in shared activities together to cultivate their social bonds, facilitating resources being shared and foster feelings of relatedness, mattering, and a sense of belonging, and ultimately strengthening their social ties over time [9]. In turn, one’s bonding social capital allows them to mobilise resources embedded in their strong ties when needed (e.g., when they face stressors) in the form of resource-sharing, provision of social and emotional support, etc., thus influencing their trajectory from an episode of distress to major psychiatric conditions [6, 10, 11, 12, 13]. In this regard, shopping venues, bars, restaurants, cafes, cinemas, parks, places of worship, and even schools serve as contexts not only for individuals to cultivate their bonding social capital but also for affirmative social support to flow through strong ties [14].

During this COVID-19 pandemic, many societies have strongly enforced lockdowns and social distancing measures, which required people to maintain physical distance and limit interactions with others. With many bonding social capital contexts closed down as part of social distancing measures, people’s means of help-seeking were restricted. Coupled with these restrictions, the emphasis placed on the term “social distancing”, as mental health scientists argued, would spur people to internalise this policy, instilling a sense of a break in social connections [15] and invoking feelings of loneliness & social isolation. Ultimately, people could be left more vulnerable to adverse mental health effects caused by the pandemic [15, 16, 17, 18].

Within the past year, there had thus been many studies focusing on the incidence of symptoms such as depression, distress, loneliness, and anxiety arising due to these measures [19, 20, 21]. Yet, they had largely left out a subtle yet important aspect – people’s help-seeking behaviours in response to adverse life events – which had traditionally been the very mechanism that mitigated the psychological impact of the stated symptoms on their mental health. An understanding of the shifts in people’s help-seeking patterns is thus urgently needed to prevent the current pandemic from bringing forth a mental health pandemic. Therefore, in this paper we investigated the question: How had social distancing measures altered people’s tendencies to seek help when facing stressors in their lives?

Since social distancing measures restricted people’s access to bonding social capital contexts, we hypothesised that: (H1) Social distancing measures lowered people’s tendencies to seek help when facing stressors in their lives. Stress intensity and the tendency to seek help, however, are known to be associated with each other [22, 23]; the higher an individual’s perceived stress is, the more likely will they seek help. Lockdown and social distancing measures had been expected to exert an unequal impact on different sections of society [24, 25, 26]. This inequality might then manifest among these subgroups as relatively lower levels of distress, and subsequently a lower tendency for them to seek help compared to other subgroups.

Indeed, while people’s mental health after the pandemic had fared worse compared to pre-pandemic times [21, 27, 28], studies confirmed that stress levels of females, children & adolescents, persons with lower socioeconomic status and pre-existing mental health conditions, as well as minority groups around the world had been disproportionately affected during the pandemic [28, 29, 30, 31, 32, 33, 34, 35]. Yet, the population in countries such as Germany and China have also shown resilience against lockdown and social distancing measures, showing no clinically significant changes in anxiety, depression, and distress [27, 36, 37]. These studies suggest that stress levels in individuals as well as sociodemographic factors ought to be ruled out before we could deduce the effects of social distancing on people’s help-seeking tendency.

Informed by the current literature, we refined our hypothesis: (H2) Controlling for stress levels and sociodemographic factors, social distancing measures still lowered people’s tendencies to seek help when facing stressors in their lives.
Results

Descriptive statistics and trends in the study population

Results in this study were drawn from analyzing a two-wave (June-July 2019 and June-September 2020) panel data that assessed youths aged 11-35 years old on their sociodemographics, distress, and help-seeking behaviors. A total of 453 individuals met the inclusion criteria for our study. Table 1 shows descriptive statistics of the study population. The 70.2% share of females in this sample is appreciably higher than the 51% share in the general population as documented in the 2016 population by-census [38]. Given the recruitment channels of the surveys, however, this ratio might signify that more females were in touch with community pastoral services, which in turn reflects the prevailing notion that females are more inclined to seek help for mental health problems [22, 39, 40]. The study population’s risk behaviour profile also showed elevated mental health risk levels, which may again be attributed to the survey’s recruitment channels. Study samples’ mean age and standard deviation were 25.66 and 5.05 respectively.

| Age group | n  | %  | Currently living with | n  | %  |
|-----------|----|----|-----------------------|----|----|
| 15-19     | 25 | 5.5| Alone                 | 21 | 4.7|
| 20-24     | 206| 45.5| Family members         | 412| 92.4|
| 25-29     | 101| 22.3| Friends               | 13 | 2.9|
| 30+       | 121| 26.8| Others                | 7  | 1.6|

| Gender    | n  | %  | Family structure       | n  | %  |
|-----------|----|----|-----------------------|----|----|
| Female    | 318| 70.2| Two-parent family      | 377| 83.4|
| Male      | 135| 29.8| Divorced parents       | 47 | 10.4|

| Education | n  | %  | Occupation status       | n  | %  |
|-----------|----|----|------------------------|----|----|
| Post-secondary or above | 403 | 89.0 | Full-time | 258 | 57.0 |
| Secondary school | 47 | 10.4 | Part-time | 64 | 14.1 |
| Primary school     | 0  | /   | Unemployed            | 131| 28.9 |
| Refuse to answer   | 3  | 0.7 | Considered suicide     | 70 | 15.5 |
|                    |    |     | Attempted suicide      | 11 | 2.4 |
|                    |    |     | Intentional self-harm  | 39 | 8.6 |

Table 1: Descriptive statistics of the study population as of the 3rd survey wave. Percentage points are rounded to 1 decimal place.

Between-wave changes in distress, social withdrawal screenings, and help-seeking tendencies of the study population are listed on Table 2. Even though the number of individuals who fulfilled the criteria for social withdrawal increased from 54 to 129, this does not necessarily imply that they became Hikikomoris in the past year; rather, a more plausible explanation might be that the imposed social distancing measures had compelled them to spend most of their days confined at home and to avoid social situations & social contact, which incidentally fulfilled diagnosis criteria for Hikikomori but also showed that the study population had experienced social distancing.

More importantly, however, the number of individuals who sought help in response to distress fell considerably, from 299 before the pandemic to 168 afterwards, even though their average stress levels in both waves largely stayed the same \( (t = 0.08, \ p = 0.93) \). In particular, activation of family, friends, partner, and religious services channels was significantly lower compared to the previous year’s, while the other six channels did not show a statistically significant drop. (It is, however, noteworthy that treatments for clinical and more serious mental conditions, e.g., psychiatric appointments, hotline counseling support, social services, etc., still continued even amidst social distancing measures, as evidenced by their consistent activation of formal support channels in both waves.)

LCA of survey participants’ help-seeking behaviours would tell us whether these decreases in help-seeking tendencies were contributed by the whole study population or could rather be attributed to just specific individuals.
### Shifts in help-seeking patterns

|                      | 2019   | 2020   | Statistical tests | Effect size   |
|----------------------|--------|--------|-------------------|---------------|
| **Stress levels**    |        |        |                   |               |
| [Mean (s.d.)]        | 2.59 (0.76) | 2.59 (0.79) | *t*(902.67) = 0.08, *p* = 0.93 | *d* = 0.01 [-0.18, 0.18] |
| **CHQ-12 score**     | 21.71 (6.30) | 21.73 (6.09) | *t*(902.98) = −0.04, *p* = 0.97 | *d* = 0.00 [-0.18, 0.19] |
| **Social withdrawal**| 54 (11.9%) | 129 (28.5%) | *X^2^ = 37.50, *p* < 0.001*** | *OR* = 2.94 [2.05, 4.26] |
| **# of individuals who sought help from family** | 112 (24.7%) | 67 (14.8%) | *X^2^ = 13.48, *p* < 0.001*** | *OR* = 0.53 [0.37, 0.75] |
| **# of individuals who sought help from friends** | 231 (51.0%) | 133 (29.4%) | *X^2^ = 43.21, *p* < 0.001*** | *OR* = 0.40 [0.30, 0.53] |
| **# of individuals who sought help from partner** | 118 (26.0%) | 58 (12.8%) | *X^2^ = 24.55, *p* < 0.001*** | *OR* = 0.42 [0.29, 0.60] |
| **# of individuals who sought help from teacher / tutor** | 26 (5.7%) | 16 (3.5%) | *X^2^ = 2.02, *p* = 0.16 | *OR* = 0.60 [0.30, 1.18] |
| **# of individuals who sought help from hotline support** | 11 (2.4%) | 4 (0.9%) | *X^2^ = 2.44, *p* = 0.12 | *OR* = 0.36 [0.08, 1.22] |
| **# of individuals who sought help from medical professionals** | 20 (4.4%) | 14 (3.1%) | *X^2^ = 0.76, *p* = 0.38 | *OR* = 0.69 [0.32, 1.46] |
| **# of individuals who sought help from social workers** | 30 (6.7%) | 27 (6.0%) | *X^2^ = 1.98, *p* = 0.16 | *OR* = 0.67 [0.39, 1.15] |
| **# of individuals who sought help from religious services** | 22 (4.9%) | 5 (1.1%) | *X^2^ = 9.77, *p* = 0.002** | *OR* = 0.22 [0.06, 0.60] |
| **# of individuals who sought help from online friends** | 25 (5.5%) | 16 (3.5%) | *X^2^ = 1.64, *p* = 0.20 | *OR* = 0.63 [0.31, 1.24] |
| **# of individuals who sought help from online social services** | 9 (2.0%) | 9 (2.0%) | *X^2^ = 0.00, *p* = 1.0 | *OR* = 1 [0.35, 2.87] |

Table 2: Stress levels, social withdrawal screenings, and activated support channels in the 2\textsuperscript{nd} & 3\textsuperscript{rd} survey waves (*n*=453). Rows are in a [n (% of study population)] format unless indicated otherwise. Numbers are rounded to 2 decimal places and percentage points are rounded to 1 decimal place. *: *p* < 0.05, **: *p* < 0.01, ***: *p* < 0.001.

Figure 1: Optimal model (based on model-fit parameters & interpretability) for patterns of help-seeking behaviours within the study population in (A) 2019 and (B) 2020. Each class’ estimated proportion of the total study population is shown on the horizontal axis, while the vertical axis denotes the estimated probability of an individual seeking support from a corresponding channel. Model-fit parameters and the interpretability of each class pointed to an optimum of 3 latent classes for both survey waves. Figure 1 illustrates the estimated size and composition of latent classes of help-seeking behaviours in 2019 & 2020. The same patterns were observed in both waves. Accordingly, individuals in the study population could then be classified into three types based on their help-seeking patterns: the first class of individuals, whom we refer to as Non-seekers, sought minimal help in relation to distress; the second class, Inner circle seekers, sought help from their inner circle sources – family, friends, and partner – for their mental health problems; and the third class, Diverse seekers, reached out to their inner circle as well as formal sources of help for their mental health problems.
Among the three patterns, *Non-seekers* had the lowest stress level (mean=2.38, s.d.=0.76), which reflects the intuition and established understanding that individuals are less likely to seek help if they are only experiencing light psychological distress. In comparison, the *Diverse seekers* had the highest stress level (mean=3.28, s.d.=0.77) and the *Diverse seekers* in-between the two (mean=2.85, s.d.=0.68). This agrees with prior understanding that youths who sought formal help showed worse mental health outcomes than those who only sought informal help, e.g., family and friends [41]. Noteworthily, *Non-seekers* and *Diverse seekers* showed no significant changes in their stress levels across the two waves but *Inner circle seekers* in the 3rd wave showed elevated stress levels (summarised in Supplementary Table S2).

Consistent patterns in both waves notwithstanding, Figure 1 shows that the number of *Non-seekers* ballooned from 0.40 of the study population before the pandemic to almost 0.67 afterwards whereas the number of *Inner circle seekers* conversely shrunk from around 0.55 to just over 0.20 of the study population. Meanwhile, the change in the share of *Diverse seekers* was smaller, increasing slightly from 0.04 before the pandemic to around 0.13 afterwards.

More specifically, as the latent class transition matrix in Eq. 1 shows, out of 231 youths who were classified as *Inner circle seekers* in 2019, 130 shifted to be *Non-seekers* in 2020. Even though there were others pattern shifts, the $I \rightarrow N$ (*Inner circle seekers* to *Non-seekers*) transition was much more prevalent than any other class transition, as the other five possible transitions combined only numbered 84 individuals. This indicates that decreases of activated family, friends, and partner channels for support that was observed in Table 2 are all largely driven by the same individuals who underwent this $I \rightarrow N$ transition. Therefore, H1 is confirmed for those individuals who primarily sought support from their inner circle, i.e., those who primarily faced moderate levels of distress.

\[
S = \begin{bmatrix}
S_{N\rightarrow N} & S_{N\rightarrow I} & S_{N\rightarrow D} \\
S_{I\rightarrow N} & S_{I\rightarrow I} & S_{I\rightarrow D} \\
S_{D\rightarrow N} & S_{D\rightarrow I} & S_{D\rightarrow D}
\end{bmatrix} = \begin{bmatrix}
155 & 42 & 9 \\
130 & 77 & 24 \\
7 & 2 & 7
\end{bmatrix}
\] (1)

**Why had so many *Inner circle seekers* become *Non-seekers* in 2020?**

Based on the latent class transition matrix, we centred on understanding reasons behind the high prevalence of the $I \rightarrow N$ transition. Individuals with an $I \rightarrow N$ transition had stable mental health, as between-wave difference in their average stress levels was -0.16 ($t(256.82)=-1.90; p=0.06; d=0.24$). We then compared individuals who underwent a $I \rightarrow N$ transition to those corresponding to other sizeable pattern changes (see Supplementary Table S3).

![Figure 2: Average stress levels of *Non-seekers* and *Inner circle seekers* before and during the COVID-19 pandemic.](image)

Table 3 summarises a multiple logistic regression comparing individuals with $I \rightarrow N$ and $I \rightarrow I$ transitions (see
Table 3: Odds ratios and 95% confidence intervals for a multiple logistic regression \( (n = 207) \) where the dependent variable denotes that an individual underwent an I → N transition. Numbers are rounded to 2 decimal places. *: \( p < 0.05 \), **: \( p < 0.01 \), ***: \( p < 0.001 \).

Supplementary Table S4 shows additional comparisons, which reach the same conclusion). Here, the dependent variable denotes that an individual underwent the I → N transition and the predictors are between-wave stress level difference & sociodemographic factors. Regression results further show that the I → N transition was neither associated with stress level changes nor with any sociodemographic predictor. Accordingly, we can therefore conclude that social distancing measures had indeed caused individuals who had previously been seeking support from their partner, family, and friends ties in dealing with stressors to no longer do so during the pandemic, thus confirming H2 for these individuals.

This finding is in line with restrictions imposed due to social distancing measures in Hong Kong: While the availability of formal mental health support, e.g., mental health professionals, hotline services, etc., was unaffected, settings such as bars, dining venues, etc., in which casual and/or intimate social support activation & provision took place among individuals’ "inner circle" / strong ties were no longer accessible. Therefore, the implementation of social distancing can be regarded as equivalent to introducing a barrier for individuals to seek help from their family, friends, and partner, which caused them to no longer seek support from these sources unless they faced heavy distress or their mental health deteriorated. This then results in the prevalent I → N transition regardless of individuals’ stress level difference & sociodemographic factors and leads to an elevated average stress level among Inner circle seekers in the 3rd wave (summarised in Supplementary Table S2 and illustrated in Figure 2). Viewed from this perspective then, social distancing measures essentially reduced people’s help-seeking tendencies by increasing the threshold (i.e., minimum stress level required) for individuals who relied on their family, friends, and partner for support to start seeking help from these sources.
Discussion

Early into the pandemic, mental health scientists had advocated for an emphasis of the term “physical distancing” rather than “social distancing”, arguing that the latter could be internalised by people, which would subsequently instill a sense of a break in social connections [15] and invoke feelings of loneliness & social isolation that would ultimately leave people more vulnerable to adverse mental health effects caused by the pandemic [15, 16, 17, 18]. The findings in our study provide one of the earliest evidences to corroborate this concern by highlighting the unintended consequences that the social distancing mantra had caused to individuals’ social support activation mechanism.

Social settings like shopping venues, schools, bars, restaurants, places of worship, while serving as contexts for physical transmission of the SARS-CoV-2 virus, also serve as an important conduit through which they could activate & receive social support from their strong ties whenever they faced distress. This latter role, which would be essential in mitigating the mental health impacts of the COVID-19 pandemic, appears to have been recognised much less in the drafting of current pandemic control measures. By simply restricting people’s access to these contexts without providing alternatives, current social distancing measures had inadvertently acted as a policy that restricted people’s means of help-seeking. In doing so, these measures had effectively increased the bar for people to activate their strong ties as a response against distress, leaving them with no protective buffer until later stages of mental health problems.

Simultaneously, the current findings also call for renewed attention towards the drive in advancing youths’ mental health. Prior to the pandemic, given youths’ low predisposition to seek help for their mental health problems [42, 43, 44], stakeholders had been pushing for individuals to seek help as early as possible through means such as lowering stigma against help-seeking for mental health problems [45], mental health literacy campaigns [46], and encouraging increased usage of mental health services [47]. Given that strong ties are predominantly the first safety buffer for individuals against mental health impacts of adverse life events [42], the increased threshold for youths to start seeking help from these ties thus serves as an early warning signal for stakeholders such that timely action can be taken to prevent the progress achieved in recent years from being further stalled or worse, undone.

Policies and population health messaging are powerful tools in mitigating mental health impacts of the COVID-19 pandemic [48], but as evidenced in this study, the current emphasis on “social distancing” needs to be reversed. Moving forward, authorities and policymakers should revise the essence of their messaging to “physically distant yet socially close” in order to (i) again remind youths in the community to reach out for help early when they face mental health problems; and also (ii) spur the community to reconfigure / adjust their mechanisms of social support activation in the pandemic era.

Empowering alternative social support channels. Technological advancements have seen new conduits for providing social support, e.g., Internet-delivered counseling, and fostering new bonding social capital, e.g., online peer communities [49] that have remained intact during the pandemic. More resources can therefore be devoted in awareness campaigns for these online platforms and in facilitating existing offline services to extend their services online. Moreover, investing these resources now would not only be cost-effective in improving youths’ mental health in the short run (as youths were more receptive than previous generations to these newer support channels [50]), but as more and more of our daily lives are integrated online, would also be good for population mental health in the long run.

Mental health problem resolution starts from the family. Family members and friends are often the first points of contact whom individuals with mental health conditions reach out to [42]. Given that a majority of youths studied here lived with family members, as shown in Supplementary Table S3, it is thus concerning that they sought help less from those who lived in close proximity to them during the pandemic. Most commonly reported setbacks in seeking help from strong ties include inappropriate support, stigma, and the supporter’s lack of training and knowledge [51]. Hence, especially during this pandemic, more awareness campaigns to encourage people to seek help early should be held. Furthermore, there should also be stepped-up efforts in encouraging the community to actively maintain social connectedness by checking in on their family & friends, as well as in educating the community to spot early warning signs of mental health issues in their family members & immediate circle of friends and to provide effective mental health first-aid support.

There are two main limitations in this study. First, due to the participant recruitment procedures, the study population may not be representative of the general youth population in Hong Kong; individuals with mental health conditions may have been represented more (yet, we argue that these at-risk individuals are precisely the
ones who need more of our attention). No question on ethnicity was also asked in the survey, and thus we could not ascertain whether ethnic minority youths, who made up around 1% of the total youths living in Hong Kong according to the latest by-census [38], had been proportionally represented in the study population.

Second, Hong Kong was rocked by social unrest that lasted from mid-2019 to the beginning of 2020, the biggest demographic constituent of which were youths. Cases of breakdowns in family relationships sparked by the unrest had been highlighted on news reports. Since the data collection period for the 2nd wave of the survey only coincided with the first half of the social unrest, we thus could not rule out the possibility that the second half of the unrest had confounded help-seeking preferences from the family in the 3rd wave.

Nevertheless, the findings here aim to provide concrete, evidence-based impetus for stakeholders and authorities around the world that are still using the term “social distancing” to immediately revise their messaging, so as to prevent the current pandemic from turning into a mental health pandemic. Finally, moving forward, the essence of population health messaging in combating the pandemic should be revised to encourage people to be socially close even though they may be physically distant. We call for a concerted effort in empowering alternative social support channels such as e-mental health channels and also the community through awareness & mental health first-aid training campaigns to further this agenda.
Methods

Participants & procedures
As part of a broader cross-institutional drive for suicide prevention among youths in Hong Kong, three waves of an online survey targeting youths living in the general Hong Kong community between 11 and 35 years old were conducted annually from 2018 to 2020. This initiative was led by the Centre for Suicide Research and Prevention (CSRP) at the University of Hong Kong (HKU).

For maximum outreach to the community, each survey wave was disseminated on multiple outlets: As poster promotions at the authors’ institution and three large nonprofit organizations in the territory which provide various pastoral services – Caritas, Hong Kong Federation of Youth Groups, and The Boys’ and Girls’ Clubs Association of Hong Kong; reminders sent to the three organizations’ members; bulk emails to newsletter subscribers of CSRP as well as students & staffs of HKU; and posts on CSRP’s Facebook and web page. Moreover, participants from the previous wave who consented to be contacted further were also reached.

Participants could choose to fill either a Chinese or English version of the survey. Written informed consent was first obtained from all participants, and they were informed of the survey’s purpose (gaining an in-depth understanding of youths’ general wellbeing), approximate survey duration (ten minutes), strict confidentiality of their data, and of their freedom to discontinue at any time. Careful consideration was taken to ensure that the survey questions would incur no risk and pose the least stress to participants. Contact information of emotional support hotlines and services were made available in the survey to encourage any distressed participant to seek support immediately.

All procedures & protocols adopted in this study complied with ethical standards stipulated in the Helsinki Declaration and were approved by the Human Research Ethics Committee for Non-Clinical Faculties of HKU under the reference number EA1709039. Consent from parents or legal guardians for under-aged participants was deemed not required by the committee as the endorsed study was assessed to pose minimal potential harm to under-aged participants.

The 2nd and 3rd waves were conducted from 5 June 2019 to 8 July 2019 and from 29 June 2020 to 29 September 2020 respectively. The novel SARS-CoV-2 virus was confirmed to have spread to Hong Kong on 22 January 2020, and subsequently the government introduced social distancing measures that were strongly enforced from 29 January 2020, which involved, among others, restricting dining and closing down bars, schools, recreational spaces, and places of worship. Thus, the 2nd and 3rd waves of the survey provide measures on these individuals before and during the COVID-19 pandemic respectively, or alternatively, under the absence and presence of social distancing measures. We only included individuals who completed both waves of the survey in our analysis.

Measures

Demographics
Participants were first surveyed on their gender, age, education level, occupation, family structure, and members they currently lived with.

Stressors and psychological distress
The questionnaire then asked for participants to rate how much distress they experienced in 8 aspects of their lives within the past 4 weeks: academic, job, financial, social life (pertaining to colleagues, friends, classmates), physical well-being, emotional well-being, relations with family, and relations with partner or spouse – from 1 (“not at all”) to 5 (“very serious”), or “not applicable”. For each participant, we then excluded items with “not applicable” responses and obtained an average of the remaining self-rated stress levels as a proxy for the participant’s mental health.

Similarly, the questionnaire also measured participants’ psychological distress within the past 1 to 2 weeks with the 12-Item Chinese Health Questionnaire (CHQ-12), where each item was scored on a 4-point scale – from 1 (“not at all”) to 4 (“much more than usual”) – and a higher total score indicating heavier psychological distress [52, 53, 54].
**Risk behaviours**

Participants were then prompted whether they had considered suicide, attempted suicide, or performed intentional self-harm in the past 12 months. All three questions were binary (“yes” and “no”) questions.

Social engagement of participants was measured with the Social Engagement-Hikikomori Scale [55] to screen for social withdrawal. A participant who responded “yes” to “spending most of the day and nearly every day confined at home” & “persistently avoiding social situations and social contact” and had not been diagnosed with any listed psychiatric disorder would be deemed as a Hikikomori, i.e., a socially withdrawn person [56].

**Help-seeking behaviours**

Lastly, participants were asked on which of 10 support channels had they activated to deal with the above stressors within the past 4 weeks: (1) family members; (2) friends, classmates, or colleagues; (3) spouse or partner; (4) teachers or tutors; (5) free hotline support; (6) medical professionals; (7) social workers or counsellors; (8) religious services; (9) online friends whom they had never met physically; and (10) online social services. The questions were also binary questions and participants could choose all that applied to them.

**Statistical analyses**

We first measured descriptive statistics of the study population. We then tested for H1 by employing Welch’s $t$-test and Fisher’s exact test to examine trends in help-seeking tendencies of the study population between the two survey waves. Effect sizes of between-wave differences were quantified by Cohen’s $d$ and odds ratios. Trends in stress levels and risk behaviours were also examined with the same approach. All analyses were conducted on R, and throughout our analyses, a $p$-value of less than 0.05 was considered to be statistically significant.

We then conducted a latent class analysis (LCA) of the 10 support channels because doing so allows us to disentangle individuals’ help-seeking behaviours from distress & sociodemographic factors, and thereby classify individuals based on their help-seeking patterns. This was implemented using the poLCA package [57] in R version 4.0.3. A separate LCA was conducted for each wave in order to identify individuals whose help-seeking patterns changed between the two survey waves.

For each LCA, we started from a model with 1 latent class and sequentially increased the number of classes up to 5 to find the optimum number. At each subsequent step, we evaluated the model based on 4 model-fit parameters that had been established as the most reliable for LCA with categorical outcomes – the bootstrap likelihood ratio test (BLR) [58], Bayesian information criterion (BIC) [59], sample size-adjusted BIC (SABIC) [60], and the Lo–Mendell–Rubin (LMR) likelihood ratio test [61] – as well as the interpretability of each class [62, 63, 64]. We also made sure that each model iteration had converged before being evaluated. The model yielding approximately the lowest BIC & SABIC, significant $p$-values for the BLR & LMR tests, and an intuitive interpretation of help-seeking behaviours for each of its latent class was chosen (see Model selection). The number of latent classes in this model then corresponded to the number of unique help-seeking patterns among the analyzed study population.

Finally, we conducted multiple logistic regression with between-wave stress level difference & sociodemographic factors as predictors and between-wave shift in help-seeking pattern as the outcome variable. This is to ascertain whether individuals whose shifts in help-seeking patterns showed reduced help-seeking in 2020 were associated with specific subgroups that were thought to be less affected by the pandemic. In our case, statistical insignificance for all predictors would support the hypothesis that a lower inclination for these individuals to seek help in response to distress was indeed a consequence of social distancing measures.
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Declarations

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