

Suicide attempts among Taiwanese lesbian, gay, bisexual, and transgender adults during the 2018 Taiwan referendum on same-sex issues

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Abstract

Purpose: To examine suicide attempts and the influencing factors among Taiwanese lesbian, gay, bisexual, and transgender (LGBT) adults during the 2018 Taiwanese referendum on same-sex issues.

Research design and methods: The 2018 Taiwanese referendum was held on November 24. A cross-sectional online survey was conducted between October 2018 and February 2019. A total of 1012 self-identified LGBT adults were included in the final sample.

Results: Among the 1012 Taiwanese LGBT adults, the rates of suicide attempts ranged from 9.1% to 24.4%. A younger age, being a student, having low income, having mental health issues, and having a high level of depressive symptoms were associated with a significantly higher risk of suicide attempts in the participants. Conversely, having a postgraduate degree, having high self-esteem, and perceiving support from friends and family were associated with a lower risk of suicide attempts.

Conclusion: This is the first study to investigate suicide attempts among LGBT individuals and the influencing factors within the context of a same-sex marriage referendum in an Asian country. The results of this study demonstrate the importance of suicide prevention measures for the LGBT community, particularly during times of increased social stress and conflict between social groups with diverse sexual and gender identities.

Clinical relevance: The results of this study suggest that nurses' and health-care providers' sensitivity toward LGBT patients and their knowledge and skills in providing culturally competent care are key factors in suicide prevention for LGBT adults. Therefore, nurses and health-care providers must be provided with training courses on culturally competent care.

KEYWORDS

attempted suicide, bisexual, gay, lesbian, Taiwan, transgender

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INTRODUCTION

The World Health Organization (2019) reported that approximately 800,000 individuals die of suicide globally every year and that vulnerable groups, including the lesbian, gay, bisexual, and transgender (LGBT) population, have high rates of suicide that are associated with experiences of discrimination, harassment, and violence. In LGBT individuals, social environment has been indicated to be related to psychological distress and suicidal behavior (Meyer et al., 2021). Taiwan is an island in East Asia and has a population of 23.57 million (Department of Household Registration, 2021). Prior to the 2018 Taiwanese referendum, general social attitudes toward LGBT people in Taiwan were conservative, and issues regarding this community were rarely discussed publicly (Jiahong, 2018). The 2018 referendum included five questions regarding LGBT rights, LGBT sex education, and same-sex marriage (Central Election Commission [CEC], 2018a; Table S1). During the period before the referendum, groups in favor of and against same-sex marriage engaged in intense public debate (Jiahong, 2018).

In May 2017, the Constitutional Court ruled that the marriage law of the time was unconstitutional and that under the Constitution of the Republic of China (ROC; Taiwan), the right to equality and freedom of marriage must be extended to same-sex couples (Judicial Yuan Interpretation No. 748, Constitution Court Judicial Yuan & R. O. C., 2017). The ruling gave the Legislative Yuan, the legislature of Taiwan, 2 years to bring the law into compliance, after which time legal registration of same-sex marriages would come into force automatically (Wu, 2017). In February 2018, a conservative Christian group called the Coalition for the Happiness of our Next Generation proposed that a second referendum be held to overturn the 2017 ruling (the Coalition for the Happiness of our Next Generation, 2018). In September 2018, a group named Marriage Equality announced that it had collected sufficient signatures to submit its own questions to a referendum (Marriage Equality, 2018). These proposals would require the legislature to amend the civil code to expressly allow same-sex couples to marry (Marriage Equality, 2018). Each group's proposal for a referendum on same-sex issues was accepted by the CEC (2018a), and thousands of people from all parts of Taiwan held demonstrations, both for and against same-sex marriage. A total of 14 meetings were broadcast by the CEC, in which the national opinion of the referendum was presented (CEC, 2018b). A "culture war" began between groups in favor of and against same-sex marriage, with topics related to same-sex marriage, such as the concept of family and sexually transmitted diseases (particularly HIV-related) being publicly debated (Jiahong, 2018).

Consistent exposure to difficult social situations can result in chronic stress and poor mental health (Meyer, 2003). Chen et al. (2021) investigated the mental health status of 1456 heterosexual and 1830 non-heterosexual adults during the periods of public debate and the referendum in Taiwan; poor mental health status was recorded for both the heterosexual and non-heterosexual groups. A group called "Youth ToBe" collected and summarized the life stories of 100 LGBT individuals during the referendum period, stating that

"even if there is only one vote of opposition, the referendum has already brought painful feelings to LGBT individuals and increased their suicidal ideations" (Xie, 2018). However, evidence is unavailable regarding LGBT adults' suicidal behavior and its influencing factors during the 2018 Taiwanese referendum.

In this study, the minority stress model (Meyer, 2003) was employed to understand LGBT adults' suicidal behavior and its influencing factors by considering the LGBT population's minority identity, chronic stress, and intense social environment. The model has been widely used to elucidate the mental health and suicidality of the LGBT community (Mongelli et al., 2019). Individuals who belong to minority groups often face stigma, prejudice, discrimination, and hostility due to the characteristics of the groups being in conflict with the conservative social norms of the dominant culture that frames society (Mongelli et al., 2019). In international studies, discrimination and internalized stigma have been reported to be highly associated with suicide attempts in LGBT individuals (Bochicchio et al., 2021; Mongelli et al., 2019; Narang et al., 2018). Moreover, studies have identified depression and anxiety as being positively related to suicide attempts in LGBT individuals (Bochicchio et al., 2021; Wolford-Clevenger et al., 2018). Although the majority of relevant studies have been conducted in Western countries, 2 studies in India and Pakistan have indicated that transgender individuals who experienced depression were three times more likely to attempt suicide than those who did not (Halli et al., 2021; Zubair et al., 2019).

The minority stress model (Meyer, 2003) indicates that certain factors promote resilience in the context of adversity. Resilience refers to a person's assets (e.g., self-esteem or coping skills) and external resources (e.g., social support or community involvement) that enable them to cope within the context of adversity (Woodford et al., 2018). Several studies have determined that suicide attempts among LGBT individuals are associated with self-esteem (Narang et al., 2018) and social support (Bochicchio et al., 2021; Narang et al., 2018; Wolford-Clevenger et al., 2018).

Suicide attempts are prevalent among LGBT individuals because of intrapersonal and interpersonal stressors. However, few studies have examined suicide attempts among Taiwanese LGBT adults and the influencing factors, particularly those related to high social stress and high-conflict situations between different social groups (e.g., heterosexual and non-heterosexual groups) within society. To fill this research gap, the present study analyzed the relationships among internalized stigma, depressive symptoms, self-esteem, social support, and suicide attempts among Taiwanese LGBT adults during the period of the 2018 referendum.

DESIGN AND METHODS

This present study was part of an online survey designed to investigate Taiwanese LGBT adults' health status, needs, and promotional strategies between October 2018 (1 month prior to the referendum) and February 2019 (2 months after the referendum). Out of consideration for the LGBT population within the still delicate social

environment of Taiwan, a cross-sectional online survey was designed and employed to approach Taiwanese LGBT adults and investigate their physical and mental health status, health behavior, social support, and health-care service utilization as well as the influencing factors for these items. Before the study began, ethical approval was obtained from the Research Ethics Committee of National Taiwan University Hospital (Ref. 201808071RIND).

Participants and recruitment

Purposive sampling and snowball sampling were employed to recruit participants. Eligible participants were those who were aged 20 years or older and self-identified as lesbian women, gay men, bisexual women and men, and transgender women and men. To recruit participants from different areas of Taiwan, the study was advertised through 14 LGBT organizations, 19 LGBT-friendly restaurants and bookstores, 14 LGBT student associations, 4 LGBT online chat rooms, and 6 LGBT pride events. The majority of the 34 participating organizations, restaurants, and bookstores were located in northern (24/45, 53.3%) and southern (10/45, 22.2%) Taiwan, with a few located in the central (8/45, 17.7%) and eastern (3/45, 6.6%) regions.

Flyers, posters, and postcards with a quick response (QR) code to an online questionnaire were used to disseminate the study information at the organizations, restaurants, bookstores, and events. An invitation and link to an online survey were posted in LGBT chat rooms and on the websites of the participating LGBT organizations and student associations. The online survey system accepted responses submitted between October 2018 and February 2019. To reduce the possibility of duplicate surveys, a notice was posted on the homepage of the survey website requesting that respondents not complete the online survey more than once.

Eligible participants were invited to respond to the online survey by scanning the QR code with their smartphone or tablet or by following the link to the online questionnaire on an internet-enabled device. On the homepage for the website, participants were asked to carefully read a detailed summary of the study before beginning the questionnaire. If, after reading the summary, the participants wished to proceed with the survey, they were to select the "Next" button to signify that they understood the nature of the study and consented to participate in it. Among the 1481 LGBT adults that responded to the online questionnaire during the data collection period, 469 were excluded (68 for being aged <20 years and 401 for providing incomplete questionnaire responses). Thus, a total of 1012 LGBT adults were included in the data analysis (response rate = 68.3%). The sample comprised 339 lesbian women, 255 gay men, 328 bisexual women and men, and 90 transgender women and men.

Measures

To measure Taiwanese LGBT adults' suicide attempts during the 2018 Taiwanese referendum period and determine the influencing

factors, five sections from the 2018–2019 Taiwanese LGBT Health Survey were included for data analysis: (a) demographics, suicide attempts, and mental health issues; (b) depressive symptoms; (c) internalized stigma; (d) self-esteem; and (e) formal and informal social support. A total of 62 questions were included in the data analysis.

Demographics, suicide attempts, and mental health issues

Research reported that LGBT individuals' demographic characteristics and their depression and anxiety disorders are associated with their suicide attempts (Halli et al., 2021). In this study, participants' age, gender, educational level, employment status, monthly income (New Taiwan Dollar, NTD), relationship status, religion, number of suicide attempts, and mental health issues were recorded for data analysis. Respondents were asked to report whether they had attempted suicide within the previous year (yes/no). Regarding mental health issues, respondents were asked to report whether they had previously received a mental health diagnosis, such as depression or anxiety. With the exception of age (which was both a continuous and categorical variable), all variables were treated as categorical variables.

Depressive symptoms

Depressive symptoms were assessed using the 10-item Center for Epidemiological Studies Depression Scale (CES-D-10; (Andresen et al., 1994). This scale appraises participants' depressive symptoms in the week preceding their participation, and the assessment items include the following: "I was bothered by things that usually don't bother me," "I felt depressed," and "my sleep was restless." Participants report the frequency with which they experience each item on a 4-point ordinal scale ranging from 0 (*rarely or none of the time; less than 1 day*) to 3 (*most or all of the time; 5–7 days*). The scale is scored from 0 to 30, with a high score indicating greater depressive symptoms. CES-D-10 has been reported to have high internal consistency in research conducted on LGBT adults (Cronbach's $\alpha = 0.88$; Hoy-Ellis & Fredriksen-Goldsen, 2016). In our study, the Cronbach's α value for the scale was 0.88. CES-D-10 was validated through examining its reliability and construct validity with Chinese populations (Boey, 1999; Lee et al., 2009).

Internalized stigma

Internalized stigma was assessed using the revised Internalized Homophobia Scale (IHP; Herek et al., 2009). This scale measures the acceptance and endorsement of sexual stigma by an individual who belongs to a sexual minority, which refers to a person's self-concept and value system. The original scale was designed for lesbian women, gay men, and bisexual women and men. UK researchers

(Timmins et al., 2017) successfully modified the scale to make it applicable to transgender populations (Cronbach's $\alpha = 0.78$ – 0.87). In our study, the statements presented in the survey were also modified to broaden their applicability to all sexual or gender minorities. Five statements were included in the scale, such as "I feel that being lesbian/gay/bisexual/ transgender is a personal shortcoming for me" and "I wish I weren't lesbian/gay/bisexual/ transgender." Respondents rated the statements on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale was scored from 5 to 25, with a high score indicating a high level of sexual or gender stigma. The IHP-R scale has demonstrated high internal consistency in studies of individuals in sexual and gender minorities (Cronbach's $\alpha = 0.78$ – 0.89 ; Herek et al., 2009; Timmins et al., 2017) and in the current sample (Cronbach's $\alpha = 0.80$). The Chinese version of the IHP-R scale was demonstrated to exhibit high reliability and validity and has been successfully used to gauge levels of sexual stigma in Chinese-speaking gay and bisexual men (Xu et al., 2017).

Self-esteem

Respondents' self-esteem was assessed using the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 2015). The RSES is a commonly employed self-report measure of self-esteem, and it has been successfully applied in LGBT populations (Vosvick & Stem, 2019). The RSES comprises 10 statements, such as "I am able to do things as well as most other people" and "I feel I do not have much to be proud of." The original RSES uses a 4-point Likert scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). In this study, a neutral option (neither agree nor disagree) was added to account for respondents who may not have a positive or negative response. The scores of this scale range from 10 to 50, with a high score indicating a high level of self-esteem. The RSES has been reported to exhibit reliability and internal consistency ranging from 0.77 to 0.91 (Rosenberg, 2015; Vosvick & Stem, 2019). In our study, the Cronbach's $\alpha = 0.90$. Content validity and factor analysis results revealed that the RSES is a reliable tool for measuring self-esteem within Chinese-speaking populations (Cheng, 2011).

Formal and informal social support

The short form of the Interpersonal Support Evaluation List (ISEL-12) was employed to measure Taiwanese LGBT adults' perceived social support (Cohen & Syme, 1985). ISEL-12 includes 12 statements, such as "If I were sick, I could easily find someone to help me with my daily chores" and "I feel that there is no one I can share my most private worries and fears with." It assesses the perceived availability of social support on a 4-point scale ranging from 0 (*definitely false*) to 3 (*definitely true*). The total score ranges from 0 to 36, with a higher score indicating greater levels of perceived support. In this study, the participants were asked to report the level of formal and informal social support they received. Formal support was defined as that from

Taiwanese government agencies, hospitals, or LGBT organizations, and informal support was defined as that from significant others, partners, family, or friends. The participants reported their support levels from each of these sources on a 4-point scale from 0 (*no support*) to 3 (*a high level of support*). In addition to the 12 statements of ISEL-12, a statement was added to assess the participants' perceived level of health-care information provided by health-care providers and significant others. High internal consistency was observed for the general population (Cronbach's $\alpha = 0.88$ – 0.90 ; Mohammad, 2020). In our study, the Cronbach's α value = 0.96 for formal social support and 0.93 for informal social support. ISEL-12 revealed adequate validity and internal consistency for Chinese-speaking women (Chen et al., 1994).

The scales employed in this survey had been previously translated into Chinese and demonstrated high reliability and validity in previous studies (Boey, 1999; Chen et al., 1994; Cheng, 2011; Lee et al., 2009; Xu et al., 2017). Prior to the full survey, the full questionnaire was assessed by three health-care and gender experts to determine its content validity. Modifications were made on the basis of the experts' comments. A pilot study was then conducted with 30 LGBT adults to verify the understandability and sensitivity of the wording in the questionnaire. The online survey system was also tested by these 30 LGBT adults before the start of the main study to verify the performance of the system on different devices (computers, tablets, and smartphones).

Data analysis

The included responses were analyzed using IBM SPSS (version 26.0; IBM). Numbers, percentages, means, and standard deviations were calculated as appropriate. Demographic characteristics, the number of suicide attempts, and the presence of mental health issues were compared within Taiwanese LGBT populations through Pearson's Chi-square test. Respondents' age, depressive symptoms, internalized stigma, self-esteem, and formal and informal support were compared using one-way analysis of variance. Binary univariate and multivariate logistic regression analyses were employed to predict Taiwanese LGBT populations' suicidal attempt (attempted suicide vs. did not attempt suicide within the past year). A multiple logistic regression model was constructed using the backward stepwise method. The standard level of statistical significance was $p < 0.05$.

RESULTS

Demographics, suicide attempts, and mental health issues

Lesbian participants constituted the largest proportion of the study sample (339/1012, 33.5%, Table S2). The majority of the participants were aged between 20 and 29 years (692/1012, 68.4%; age

range 20–55 years, mean 27.28 years, SD 6.330 years), were biologically female (649/1012, 64.1%), had an undergraduate degree (653/1005, 65%), had a full-time job (491/975, 50.4%), had no income (417/1012, 41.2%), were single (518/1003, 51.6%), and were nonreligious (547/1008, 54.3%).

Compared with the gay, bisexual, and transgender participants, the lesbian participants were more likely to have partners (168/338, 49.7%) and have a monthly income greater than or equal to NT\$40,001 (105/339, 31%). The gay participants were older (mean 28.47, SD 7.330) and less likely to be unemployed (18/246, 7.3%). The bisexual individuals were younger (mean 25.79 years, SD 5.642 years) and were more likely to be students (142/319, 44.5%) and have no income (163/328, 49.7%). The transgender participants were more likely to be single (55/88, 62.5%), to be nonreligious (58/89, 65.2%), to have attempted suicide within the preceding year (22/89, 24.4%), and to have been diagnosed as having a mental health issue (38/65, 58.5%).

Depressive symptoms, internalized stigma, self-esteem, and social support

The study results revealed significant differences in depressive symptoms ($p = 0.002$, Table S3), internalized stigma ($p < 0.001$), self-esteem ($p = 0.003$), and formal ($p < 0.001$) and informal ($p < 0.001$) social support among the Taiwanese LGBT adults.

Compared with the lesbian, gay, and bisexual participants, the transgender adults had a higher level of depressive symptoms (mean 11.36, SD 5.95) and internalized stigma (mean 14.86, SD 4.54), lower level of self-esteem (mean 27.64, SD 7.34), and less perceived informal support (mean 10.01, SD 6.30); they also had less perceived formal social support (mean 5.78, SD 7.55) than the gay participants did (mean 8.52, SD 8.63). The results revealed no significant differences in formal social support among the lesbian (mean 5.62, SD 7.39), bisexual (mean 6.33, SD 8.00), and transgender participants.

The gay participants reported a higher level of internalized stigma (mean 11.45, SD 4.08) than the lesbian participants did (mean 10.51, SD 3.49); they had higher perceived formal social support (mean 8.52, SD 8.63) than the lesbian (mean 5.62, SD 7.39) and bisexual (mean 6.33, SD 8.00) participants did.

Binary logistic regression analyses of factors associated with suicide attempts

In univariate regression analyses, participants who identified as bisexual (odds ratio [OR] 1.843, 95% confidence interval [CI] 1.146–2.963; Table S4) or transgender (OR 3.214, 95% CI 1.753–5.894), were students (OR 2.767, 95% CI 1.780–4.301), were unemployed (OR 3.557, 95% CI 1.880–6.727), had a part-time job (OR 3.384, 95% CI 1.643–6.969), had no monthly income (OR 5.088, 95% CI 2.576–10.048), had a monthly income of NT\$1–NT\$30,000 (OR 4.164, 95% CI 1.967–8.816) or NT\$30,001–NT\$40,000 (OR 2.289,

95% CI 1.002–5.229), had mental health issues (OR 13.071, 95% CI 8.020–21.304), and had high levels of depressive symptoms (OR 1.190, 95% CI 1.148–1.233) had an increased risk of suicide attempt. Participants who were older (OR 0.916, 95% CI 0.882–0.952), had a postgraduate degree (OR 0.376, 95% CI 0.192–0.736), had high self-esteem (OR 0.874, 95% CI 0.848–0.901), and had received informal support (OR 0.927, 95% CI 0.900–0.954) had a reduced risk of suicide attempt.

In the multivariate regression analyses, participants who identified as transgender (OR 2.561, 95% CI 1.124–5.840), had no income (OR 2.264, 95% CI 1.019–5.030), had a mental health issue (OR 5.822, 95% CI 3.359–10.088), and had a high level of depressive symptoms (OR 1.087, 95% CI 1.029–1.148) had an increased risk of attempted suicide. By contrast, having high self-esteem (OR 0.948, 95% CI 0.912–0.985) was associated with a reduced risk of attempted suicide.

DISCUSSION

This study examined suicide attempts and their influencing factors among Taiwanese LGBT adults during the period of the 2018 Taiwanese referendum. The overall rate of suicide attempts among the participants was 12.6%. The reported rates of suicide attempts in international studies have varied from 3% to 44.7% (Becerra et al., 2021; Yıldız, 2018), and the rates of suicide attempts among the participants in the present study are within this range.

The rates of suicide attempts in this study are higher than in other reports in Taiwan. For example, in the study by Wang et al. (2019), approximately 5.8% of the 500 gay and bisexual men surveyed reported suicide attempts. Wu and Lee (2021) conducted a survey to compare the suicide risk, self-efficacy, and mental health help-seeking behavior between 70 LGBT adults and 515 heterosexual adults. Of the 70 LGBT adults (comprising 25 lesbian, gay, and bisexual individuals and 45 transgender and gender minority individuals), 28 (40%) were recruited from the psychiatric outpatient department of a hospital and the remaining participants were recruited online. The 515 heterosexual adults were selected from the Nationwide Mental Health Survey (from a total of 2147 individuals) as a comparison group. Both the LGBT individuals and their counterparts were aged between 21 and 39 years. The rates of prior suicide attempts in the LGBT and comparison groups were 17.1% and 1.4%, respectively (Wu & Lee, 2021); the rate of suicide attempts in the current survey (12.6%) is much higher than that documented for the comparison group. Regarding recruitment (40% of respondents were patients with mental health disorders), the respondents in Wu and Lee's study were mostly transgender and gender minority individuals (approximately 64%); the rate of suicide attempts in the present study (24.4%) for the transgender respondents is higher than that in Wu and Lee's study (17.1%). Although neither Wang et al. (2019) nor Wu and Lee (2021) provided a data collection period, the high levels of social stress and conflict within Taiwanese society may have led to the increase in LGBT adults' suicide attempts.

In this study, identifying as bisexual or transgender was significantly associated with an increased risk of suicide attempts. Compared with the lesbian and gay participants, the bisexual participants had a higher risk of suicide attempts due to uncertainty about their sexual orientation (Liu et al., 2019). Bisexual individuals may also have greater stress levels due to the pressure to assimilate into social groups, including heterosexual and non-heterosexual groups that may hold negative attitudes toward bisexual individuals (Liu et al., 2019). In this study, approximately half of the bisexual respondents were young (76.5% were aged 20–29 years), students, and had no monthly income, all of which may contribute to their risk of attempting suicide. Chen et al. (2020) conducted a mixed-methods study to explore suicide risk and related psychosocial factors among 857 college students in Taiwan. They revealed that over 25% of the students had poor mental health status and reported self-harm in the preceding year. Stress from personal and family expectations was the most reported reason for their poor mental health, and self-harm was indicated as one of the most common coping strategies for this stress (Chen et al., 2020). In the present study, bisexual students who still relied on parents' economic support may have felt stress and internal conflict when trying to discuss the referendum on same-sex issues with their families, which may have led to their increased risk of suicide attempts.

Yıldız (2018) reported that, compared with the cisgender (non-trans) population, transgender individuals were at a higher risk of attempting suicide. During the period of the 2018 Taiwanese referendum, semi-structured interviews were conducted with 98 LGBT adults (manuscript in preparation). Several transgender interviewees reported that they experienced discrimination or harassment in the workplace, official organizations, or the health-care system due to their appearances. These experiences were reported to increase transgender individuals' stress and their risk of suicide attempts. According to national and international research (Liu et al., 2019; Meyer et al., 2021; Wolford-Clevenger et al., 2018) and the results of the present study, bisexual and transgender individuals experience more challenges than lesbian women and gay men do in Taiwanese society, particularly when the social environment within different sexual and gender groups is saturated with conflict and stress.

In this study, mental health issues and depressive symptoms were positively and significantly associated with Taiwanese LGBT adults' suicide attempts, especially in those diagnosed as having mental health issues; these adults reported 13.07 times more suicide attempts than did those without mental health issues. Depression or anxiety among LGBT individuals has been determined to increase suicide attempts (Halli et al., 2021; Yıldız, 2018; Zubair et al., 2019). Nurses and health-care providers should be aware of and assess sexual and gender minority patients' mental health status and provide culturally competent care.

Self-esteem and informal support reduced the risk of suicide attempts among the participants of this study. These results correspond with the findings of other national (Wang et al., 2019) and international research (Narang et al., 2018). Woodford et al. (2018) suggested that increasing positive coping skills, self-esteem, and social support

among sexual and gender minorities can lower their risk of suicide attempts and depression. Therefore, nurses and health-care providers should assist LGBT adults in developing positive coping skills (e.g., exercise or healthy eating habits) and building self-confidence and self-esteem (e.g., positive thinking) (Woodford et al., 2018).

This study has several limitations. First, approximately 68% (692/1012) of the respondents were aged between 20 and 29 years; thus, the results may not be generalizable to older LGBT populations. Second, heterosexual individuals were not included in the study; therefore, suicide attempts or depressive symptoms in LGBT and heterosexual adults during the 2018 Taiwan referendum period could not be compared. Third, although transgender adults were recorded as having a high risk of suicide attempts, more depressive symptoms, lower self-esteem, and less perceived informal social support, the small sample size of transgender respondents ($n = 90$) should be considered.

CONCLUSION AND IMPLICATIONS

This is the first study to investigate suicide attempts in LGBT adults and the corresponding influencing factors within the context of a same-sex marriage referendum in an Asian country. The results of this study demonstrate the importance of suicide prevention measures for LGBT groups, particularly measures aimed at cultivating strategies for coping with increased social stress and conflict between social groups with diverse sexual and gender identities.

As LGBT rights become more globally recognized, other countries may soon open discussion or hold referenda on same-sex marriage or related issues. On the basis of the results of this study, several strategies are proposed for maintaining mental health, managing social stress, and preventing suicide among LGBT individuals. Nurses and health-care providers should assist LGBT individuals in developing positive coping strategies and building self-confidence and self-esteem. Moreover, nurses and health-care providers should be educated and trained on how to provide culturally competent care to LGBT patients because according to our previous research, Taiwanese nurses currently lack such knowledge and skills (ref.). LGBT organizations can assist LGBT individuals in strengthening their connections within the LGBT community to improve their social support resources. Official organizations can use social media to promote optimal communication, open discussion, and a respectful environment, thereby reducing conflict within Taiwanese society.

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CLINICAL RESOURCES

- National LGBTQIA+ Health Education Center. Suicide Risk and Prevention for LGBTQ Patients. <https://www.lgbtqihealtheducation.org/publication/suicide-risk-and-prevention-for-lgbtq-patients/>

- National LGBTQIA+ Health Education Center. Suicide in LGBTQ Community: Understanding Why and Best Practices for Health Centers. <https://www.lgbtqihealtheducation.org/courses/suicide-in-the-lgbtq-community-understanding-why-and-best-practices-for-health-centers/>

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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