



“Pause, Call, Be Heard”

Final Evaluation

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Executive Summary

What did we evaluate?

We evaluated the effectiveness of the “Pause, Call, Be Heard” (PCBH) advertising campaign in Victoria and New South Wales on future help-seeking intentions and behaviours of people that were exposed to the campaign. We investigated how successful the PCBH has been regarding the following aims of the campaign:

- Encouraging people to engage in help seeking behaviour
- Building awareness of Lifeline and crisis services

How did we evaluate it?

Our evaluation estimated the impact of the PCBH campaign on attempted calls to Lifeline in New South Wales (NSW) and Victoria (Vic) after viewing the advertisements. We used a difference-in-differences (DiD) method, where we compared calls to Lifeline in NSW and Vic and calls to Lifeline in comparison states before and after the introduction of the PCBH campaign. We also used regression analysis to assess whether there were any changes in the number of suicides along rail corridors in NSW and Vic where the campaign was implemented. Finally, we investigated differences on future help-seeking behaviour and reactions to the PCBH campaign depending on the mode of viewing the advertisements accounting for a range of demographic factors and when the advertisements were most recently seen.

What did we find?

We found the number of calls made to Lifeline by NSW residents relative to a suitable control group that experienced similar trends in calls in the five years prior to the PCBH campaign, increased in the first six months after the campaign commenced between October 2020 and March 2021. This also accounted for similar trends between both groups during a six-month period that accounted for Covid-19. This means that the campaign led to a positive change in the behaviour of those exposed to the campaign in NSW.

We also found a positive correlation between calls to Lifeline in Victoria and the introduction of the PCBH campaign. However, this association was found in the absence of a suitable control group and therefore is considered limited evidence of an increase in calls.

In terms of engagement with the PCBH campaign materials, we found the campaign has had a wide-ranging impact with two in every three respondents (65%) reported engaging with at least one of the messages. Two out of every three respondents viewed the PCBH materials digitally (68.1%), with almost one in five (19.7%) noticing them at the train station and just over one in 10 (12.2%) noticing them both digitally and at the train station with there being little difference based on whether they lived in NSW or Victoria.

In terms of direct engagement with Lifeline, we found survey respondents were more likely to report calling Lifeline for themselves and to consider the PCBH messaging if they saw the PCBH advertisements on a billboard at the train station or at the train station and digitally rather than if they reported just seeing the ads digitally. We found that survey respondents who rated their current mental health more positively were

also more likely to contemplate calling Lifeline themselves or think about a friend or family member who would benefit from contacting Lifeline after viewing the PCBH materials. More generally, those who reported more positive mental health ratings were also more likely to consider help from a trained professional, a partner or relative, and for someone else after viewing the PCBH materials.

Whilst we did not find a change in the future help-seeking intentions for survey respondents who viewed the advertisements, the changes in calls made to Lifeline in NSW are evidence of actual behavioural change because of the PCBH campaign. As for help seeking intentions, we found that after viewing the advertisements:

- 81.6% of respondents were likely to seek help from a friend
- 77.8% of respondents were likely to seek help from Lifeline for themselves
- 76.6% of respondents were likely to seek help from Lifeline for someone else
- 66.4% of respondents were likely to seek help from a partner or relative
- 58.4% of respondents were likely to seek help from a trained professional

We found strong brand awareness of Lifeline amongst survey respondents with more than 75% of respondents recognising the Lifeline phone number irrespective of whether they were from NSW or Vic. We also found strong recognition of the lifeline logo, albeit survey respondents from NSW reported stronger awareness of the logo than respondents from Vic (78% c.f. 71% respectively).

Finally, we found no strong evidence that number of pre and post suicides has decreased more in the rail corridors where the PCBH intervention was implemented compared with the control rail corridor.

What are the limitations of this evaluation?

Survey research is vulnerable to social desirability bias which can often lead to respondents providing answers they believe to be more socially acceptable and can also suffer from other forms of bias that could potentially affect the truthfulness of the data provided. However, our survey adopted a method of prompted recall (which presented participants with actual images of campaign materials) to mitigate the risk of recall bias. We especially chose materials that were as explicitly as different as possible to overcome this. The sampling of survey respondents may have also been affected because of Covid-19. There is potential for the mix of commuters to have changed due to fewer people travelling on the network and the difference between the characteristics of jobs and the demographics of the persons that perform jobs that could be performed from home versus the ones that cannot.

We have assumed that there were no other changes occurring in the control states that were not occurring in NSW or Victoria. It is always prudent to adopt a conservative approach to interpreting the findings as it is not possible or realistic to account for the full suite of external factors that could influence call volumes to Lifeline.

Finally, this study was not able to make causal statements about suicidal ideation or deaths from suicide. Apart from the limitations with the data available, it is probably unrealistic to expect a campaign like PCBH

to impact directly on this. It is highly likely that a more targeted approach and a longer maturation period between the intervention and evaluation is necessary to assess these impacts more confidently.

Background

Linking individuals with suicidal ideation to suitable mental health care services is a critical feature of suicide prevention (Hom, Stanley, & Joiner, 2015). A recent review of the help-seeking literature revealed that just under 30% of mental health care services were being accessed by past-year suicidal individuals, with a preference for self-management, a fear of hospitalisation, a lack of time and finances, an a perception of not needing services all acknowledged as barriers to care (Hom, Stanley, & Joiner, 2015).

Hom, Stanley, & Joiner (2015) also noted that numerous interventions have been developed to address this decline in accessing mental health care services. They categorise them as either education-based programs, peer and gatekeeper training and screening-based approaches. Klimes-Dougan, Klingbeil, & Meller (2012) reviewed literature that focused on the effect of educational, gatekeeper training and public messaging interventions on help-seeking attitudes of youths. Their findings were mixed, with many interventions having a limited impact on youths' attitudes towards help-seeking behaviour, but at the same time acknowledging some interventions were positive (Klimes-Dougan, Klingbeil, & Meller, 2012).

The "Pause, Call, Be Heard" campaign (PCBH) was developed by TrackSAFE and the Lifeline Research Foundation in 2017 and has previously been rolled out across five states in Australia, with the original pilot occurring at train stations in Victoria (VIC) from December 2017-November 2018. Through engaging positive, and interactive advertisements, PCBH alerts the public to take a pause and remember that they are never alone – and that Lifeline's crisis support services are available 24/7.

The rationale for the original PCBH strategy was developed with the involvement of the suicide prevention sector and those with expertise through lived experiences via focus group testing.

The current PCBH campaign was running concurrently in two Australian states (Victoria and New South Wales) between June 2020 and June 2021 in train corridors known as "hot spots" for suicides. Station billboards were also launched at selected NSW stations where suicide incidents frequently occurred on September 7, 2020. Victoria did not place billboards at any of their stations.

The objectives of the 2020 PCBH campaign were to encourage rail customers to seek help by calling the Lifeline crisis helpline. Specifically, it aimed to:

- Encourage help-seeking intentions and behaviours
- Increase the general awareness of Lifeline services
- Disrupt intense negative feelings/suicide ideation by encouraging a breathing exercise and a call to the Lifeline crisis helpline

Previous evaluation of PCBH

Too et al (2020) evaluated the original PCBH campaign. They found:

- that 26% of selected rail commuters at selected rail stations noticed the campaign.
- 75% indicated that they had engaged with the campaign materials. With almost 80% of them reporting that the materials had increased their intention to seek help

- The initial reactions to the campaign was positively associated with help-seeking intention and behaviours.
- An increase in Lifeline crisis calls but not calls related to suicide during the campaign period.
- A non-statistically significant reduction in rail suicide behaviours in Victoria during the campaign period.

This study was not able to attribute observed changes in calls to Lifeline to the PCBH campaign as they did not have valid comparison groups. This evaluation will attempt to overcome this limitation by employing a Difference-in-differences (DiD) causal research design (the approach is detailed in the Evaluation method section). The Too et al (2020) study was not able to attribute changes in help-seeking intentions and behaviours for similar reasons.

Current evaluation

This evaluation assessed the effectiveness of the PCBH campaign in Victoria and New South Wales promoting intentions and behaviour change on a range of outcomes. The evaluation investigated how successful PCBH has been regarding the following aims of the campaign:

- Encouraging people to engage in help seeking behaviour
- Building awareness of Lifeline and crisis services

The key evaluation outcome questions are set out below:

1. What effect has the PCBH had on individuals exposed to the campaign regarding their:
 - Awareness and engagement with the message in PCBH campaign
 - Help-seeking intentions and behaviour
 - Awareness of Lifeline
2. Has the number of calls to Lifeline increased in NSW and Victoria relative to calls in other Australian States not exposed to the PCBH campaign with similar trends in calls prior to the campaign?
3. Has the number of suicides fallen in areas exposed to the PCBH campaign relative to suicides in another corridor with similar trends in suicides prior to the campaign

Evaluation data

The evaluation design adopted a mixed-method approach to data collection and analysis that involved the use of both quantitative and administrative data drawn from four main data sources, outlined in the following:

- A purpose-designed survey
- Lifeline service call data
- Rail company and coronial suicide incident data

- Lifeline brand-tracking data

Survey Data – Pure profile Survey

Pure Profile (a third-party survey company) administered an online survey that was sent to geotargeted commuters on Victorian and New South Wales train corridors. A target of 1000 respondents were asked questions about:

- their awareness and response to the PCBH campaign. They provided responses to retrospective help-seeking and help-seeking intentions questions as well as retrospective goal setting and planning and goal setting and planning intentions questions.
- Respondents also answered questions about their engagement and reactions to the PCBH campaign material they encountered as well as brand awareness questions.
- There was also a question about the design and look of the campaign materials.
- Finally, respondents provided their respective age ranges, gender, and self-report mental health ratings so we could better understand their characteristics. The survey was run during three two-week periods of the campaign listed below:
 - Monday 1st until Sunday 31 January (two weeks, or until target number of surveys was reached)
 - Monday 15th until Sunday 28th March (two weeks, or until target number of surveys was reached)
 - Monday 17th until Sunday 30th May (two weeks, or until target number of surveys reached)

Lifeline Call Data

Lifeline call data from NSW, VIC, Tasmania, and South Australia was used to measure whether the PCBH campaign led to an increase in calls to Lifeline. Call data was received at three time points:

- Pre data – call data from Lifeline between 2015 and August 2020
- Interim post data – call data from Lifeline between September 2020 and January 2021. This data was presented as part of the evaluations interim results and is also used in this report.
- Final post data – call data between September 2021 and June 2022.

Suicide Data

Data was analysed using confirmed and suspected suicide attempt incident data at the locations where the campaign intervention was implemented in NSW and VIC and one control corridor.

Each State and Territory track and manage sensitive suicide data through a state-run suicide register. Suspected suicide incidents are tracked through these registers and undergo a coronial process to confirm whether a suicide occurred. This coronial process can often take several years.

In Victoria, the suicide register capability is advanced and specific locational data of where a suicide occurred can be accessed. However, in New South Wales the suicide register capability in determining specific locational data is limited and could not be accessed for the purpose of this evaluation. Due to this,

a range of data sources were used to understand the occurrence of suicide incidents at the intervention sites, however it is important to note the limitations of the use of this data.

Victorian Suicide register data: Confirmed and suspected suicides

Metrorail suicide and self-harm data: data on suspected self-harm and suicide incidents on the Victorian metro rail network managed by rail company. This data has not undergone the coronial process to confirm it as a suicide.

V/line suicide and self-harm data: data on suspected self-harm and suicide incidents on the regional Victorian rail network managed by rail company. This data has not undergone the coronial process to confirm it as a suicide.

Transport NSW suicide and self-harm data: data on suspected self-harm and suicide incidents on the metro and regional rail network managed by rail company. This data has not undergone the coronial process to confirm it as a suicide.

Social media brand tracking data

Impressions and number of internet clicks of Lifeline digital advertisement material were tracked between the 29th June 2021 and 5th of August 2021. A summary of these findings is presented later in this report.

Evaluation method

To answer Evaluation question 1, we employed a non-equivalent dependent variable design to attempt to overcome challenges associated with the internal validity of measuring a causal impact of the PCBH campaign on intentions of help-seeking behaviour. A non-equivalent dependent variable is a “. . . dependent variable that is predicted not to change because of the treatment but is expected to respond to some or all of the contextually important internal validity threats in the same way as the target outcome” (Shadish et al., 2002, p. 509 in Coryn & Hobson, 2011, p33). In this study, we did not expect the campaign to affect the planning and goal-setting history of those exposed. Therefore, we included five questions on planning and goal-setting history and future intentions adapted from the Time Management Questionnaire (Britton & Tesser, 1991) to act as the control group for the questions related to intentions of help-seeking behaviour. If the PCBH campaign has been successful at changing help-seeking intentions and behaviour, the changes recorded here will be significantly larger than those associated with planning and goal-setting history and future intentions.

The most common threats to internal validity are selection bias, history, maturation, regression, attrition, testing, and instrumentation (Coryn & Hobson, 2011). The non-equivalent dependent variable design has the potential to overcome these internal validity threats in this evaluation except for selection bias.

Selection bias refers to how groups or individuals participate in a study. In this evaluation, we do have to consider this as the respondents to the PCBH campaign in Victoria and New South Wales self-select into our sample. There is no way to determine whether those who respond to the survey are systematically

different to those individuals that choose not to participate. The history threat refers to changes between the first and second measurements. As our study is retrospective, we asked both pre-test and post-test questions in the survey at the same time, avoiding the threat of response-shift bias¹.

For evaluation question 2, we employed a Difference-in-differences design and used the number of calls to Lifeline in Tasmania and South Australia as a valid comparison group. We have selected Tasmania as it is rare for national campaigns to reach Tasmania, meaning that residents in Tasmania are less likely to have been exposed to the PCBH campaign and past Lifeline campaigns. When we combined their call history with that of South Australia, we were able to find a very stable comparison group which satisfied the common trends assumption necessary to perform this analysis.

The difference-in-differences approach uses pre- and post- intervention data from an intervention and a comparison group to isolate differences in outcomes for the intervention group in the post-intervention period. These remove any pre-existing differences in outcomes between the comparison and treatment group, and normal differences in outcomes which occur between the pre- and post-intervention periods.

This involves estimating the following equation,

$$Y_{it} = \beta_0 + \beta_1(G_i * T_t) + \beta_2G + \beta_3T + \varepsilon$$

where

Y_{it} is the outcome for unit i at time t

$G_i * T_t$ denotes an Intervention group in the post-intervention period P

G indicates group membership (intervention = 1, control =0) for the analysis

T are time variables (in a two-period model, 0 in the pre-period, and 1 in the post-period)

The estimate of interest (i.e. the impact of the PCBH campaign) is β_1 . The validity of the difference-in-differences approach hinges on two assumptions:

Common trends: The intervention and comparison groups have similar trends in their outcomes over time

Non-contamination: Non PCBH groups do not witness the PCBH campaign materials or have any other intervention co-occurring in the post-intervention period that is not also occurring for the intervention group.

The advantages of the difference-in-differences approach are that:

- It relies on similarities in trends in outcomes, as opposed to similarities in the people exposed and not exposed to the PCBH campaign
- It does not rely on random variation in treatment assignment

For evaluation question 3, we performed a pre post regression analysis of suicides and suicide attempts at stations where the intervention occurred.

¹ Response-shift bias is where people rate themselves on something initially, and then experience an intervention and realise that their initial rating was too high.

Results

Call data analysis

The Call data between the 5th of January 2015 and the 14th of June 2021 were analysed to produce these final evaluation results of the effect of the PCBH campaign on the number of calls made to Lifeline. The call data – provided by Lifeline for this analysis – was categorised as either calls answered, or calls offered.

The calls answered data is the actual number of calls that were attended by a volunteer or staff member at Lifeline and the calls offered data is the actual number of calls that were attempted by individuals seeking assistance

The evaluation results in this presentation rely on the calls offered data only. This is because the assumption of common trends between the control state(s) and intervention state(s) could not be satisfied with calls answered data. Common trends is a key assumption of the difference-in-differences (DiD) method proposed for these analyses.

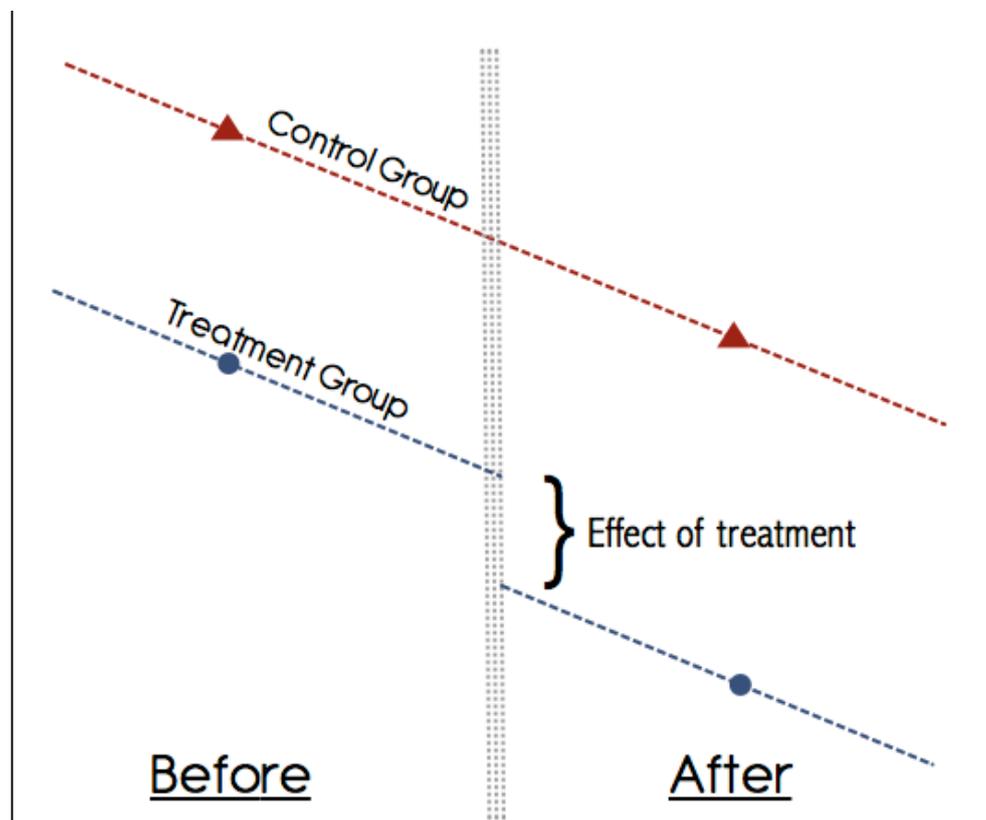


Figure 1: Stylistic representation of the assumption of common trends

The difference-in-differences approach uses pre- and post- intervention data from an intervention and a comparison group to isolate differences in outcomes for the intervention group in the post-intervention period. These remove any pre-existing differences in outcomes between the comparison and treatment group, and normal differences in outcomes which occur between the pre- and post-intervention periods. In Figure 1 above, the treatment and control groups share similar pre-treatment trends (Before). In the Post-treatment (After) period we see a shift away (down) from the trend for the treatment group. This is the

treatment effect we can attribute to the intervention as the pre-existing differences have been accounted for in our post intervention result.

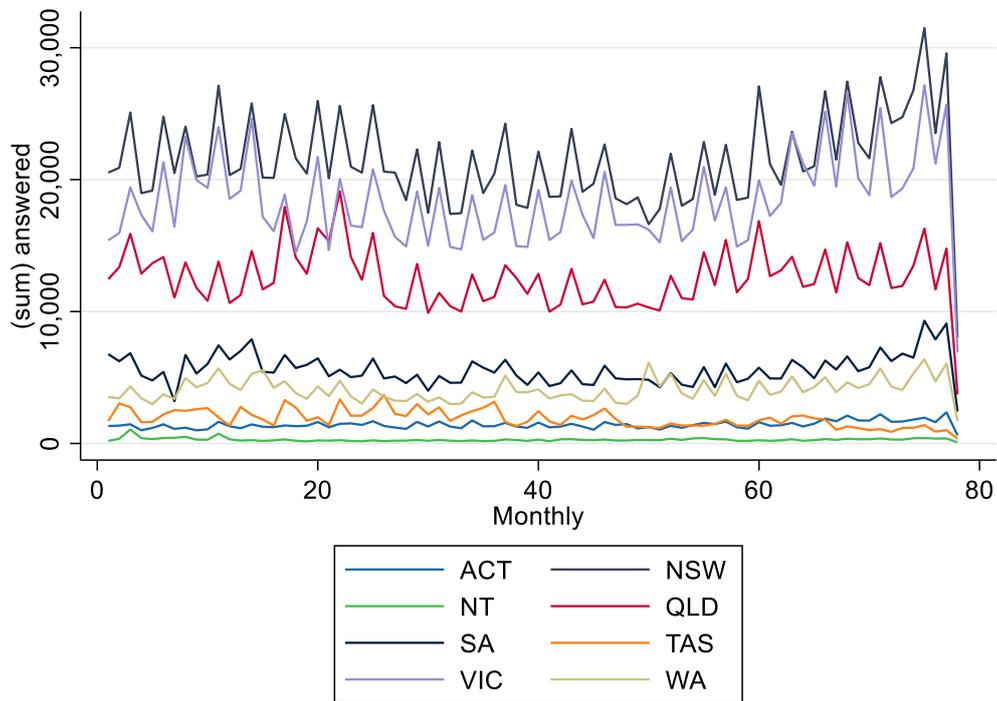


Figure 2: Monthly number of calls answered by Lifeline by month between 2015 and June 2021

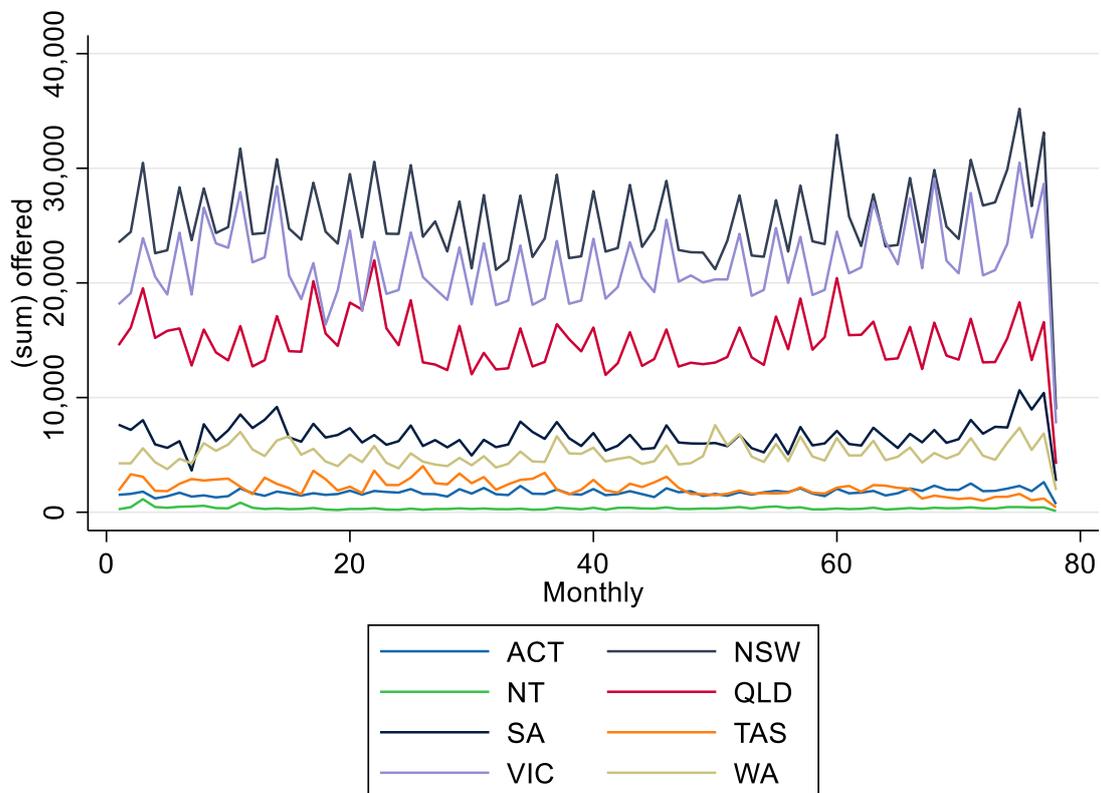


Figure 3: Monthly numbers of calls attempted to Lifeline 2015 - June 2021

As can be seen in the aggregated call answered and calls offered numbers, the trends Figure 3 between the states are less volatile than those in figure 2. These graphs also show that Victoria and NSW would be good control groups for each other, except they both initiated the PCBH campaign in the same year. Therefore, *calls offered* is a better reflection of perceived demand, given these are the calls placed by people attempting to contact Lifeline

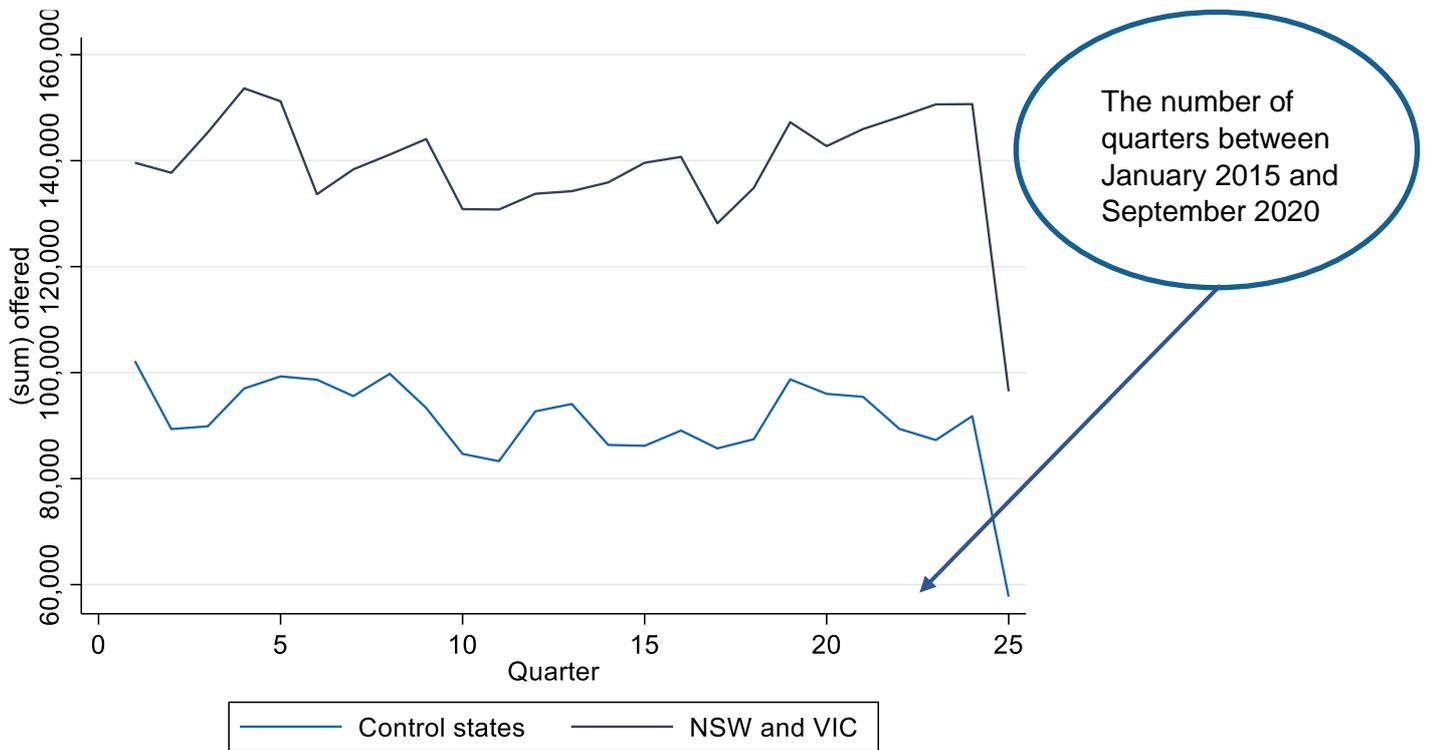


Figure 4: Calls offered in NSW and Victoria compared to all other Australian States and territories

As Figure 4 shows, when we combine the two treatment states (NSW and VIC) and compare the trends of their call offered data with individual states or all other states combined, the assumption of common trends was unsatisfied – even when the monthly call data was condensed into quarters, to try and smooth out some variation between months. Therefore, the call data analysis of NSW and VIC as a combined treatment group (meaning those who received the PCBH campaign) will be a correlational pre post PCBH intervention regression analysis to estimate the relationship between the PCBH campaign and calls to Lifeline, as opposed to a causal DiD. These results are presented later in this evaluation report.

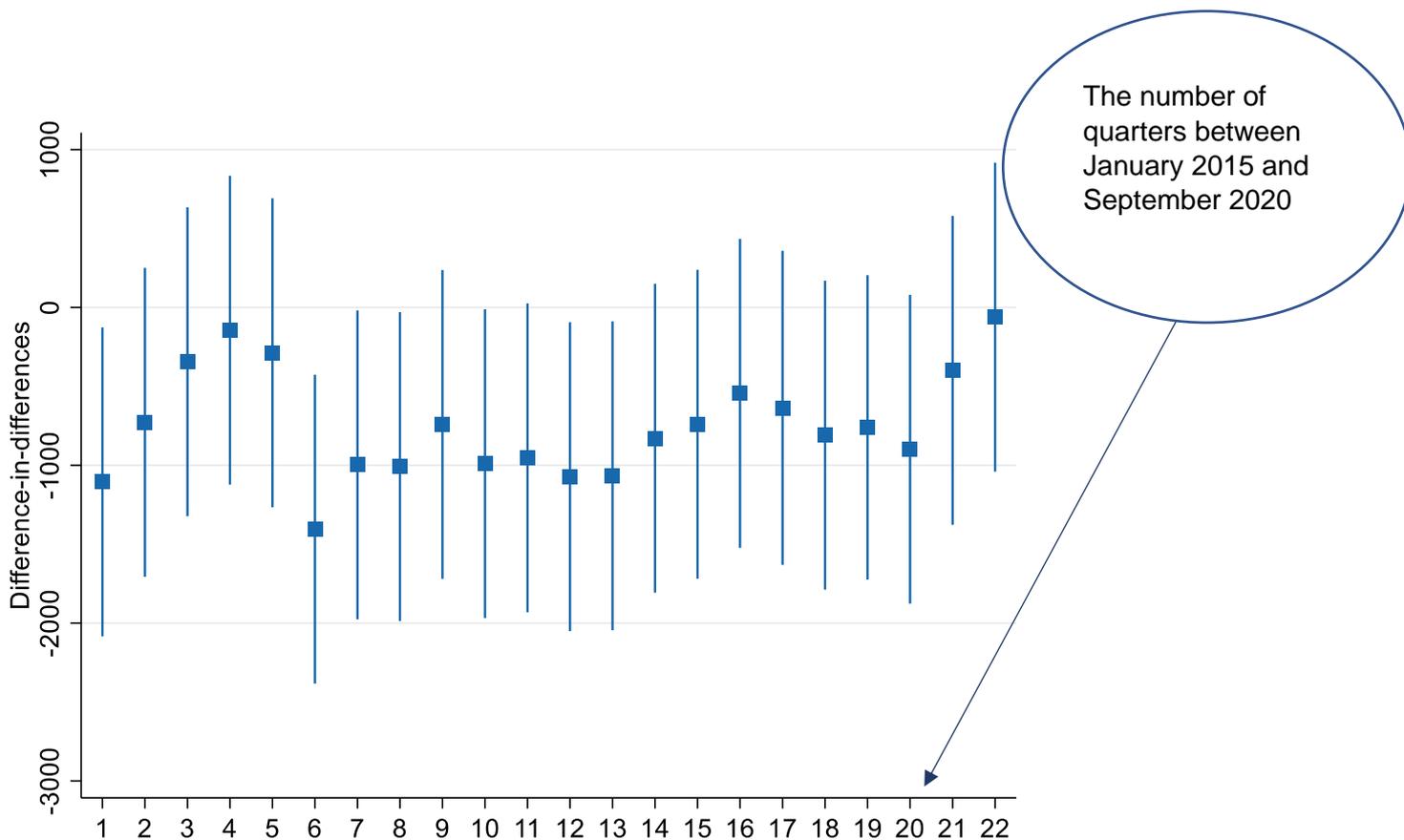


Figure 5: Coefficients of calls offered for Victoria versus other Australian States and territories

Similarly, to the combined VIC and NSW analysis, as Figure 5 shows, the common trends assumption was not met for VIC when their call data was compared to individual states or groups of states. To qualify, the point estimates (blue squares) need to be close to zero and most or all of the confidence intervals (blue lines) should overlap with the zero point on the graph (indicating that the difference between the differences of both control and treatment groups are close to or equal zero). The results in Figure 5 do not meet this threshold and we are unable to proceed with a DiD analysis due to failing the common trends assumption. Therefore, a correlational pre post PCBH intervention regression analysis will also be used to estimate the relationship between the PCBH campaign and calls to Lifeline. These results are presented later in this evaluation report.

Table 1: Description of quarters in the NSW difference-in-differences analysis in Figure 6 (see below)

2	April – June 2021	-4	Oct – Dec 2019	-10	April – June 2018	-16	Jan – March 2017
1	Jan – March 2021	-5	July – Sep 2019	-11	Jan – March 2018	-17	Oct – Dec 2016
0	Oct – Dec 2020	-6	April -June 2019	-12	April – June 2018	-18	July – Sep 2016
-1	July – Sep 2020	-7	Jan – March 2019	-13	Oct – Dec 2017	-19	April -June 2016
-2	April -June 2020	-8	Oct – Dec 2018	-14	July – Sep 2017	-20	Jan – March 2016
-3	Jan – March 2020	-9	July – Sep 2018	-15	April -June 2017	-21 - 23	April – Dec 2015

NSW Difference-in differences analysis

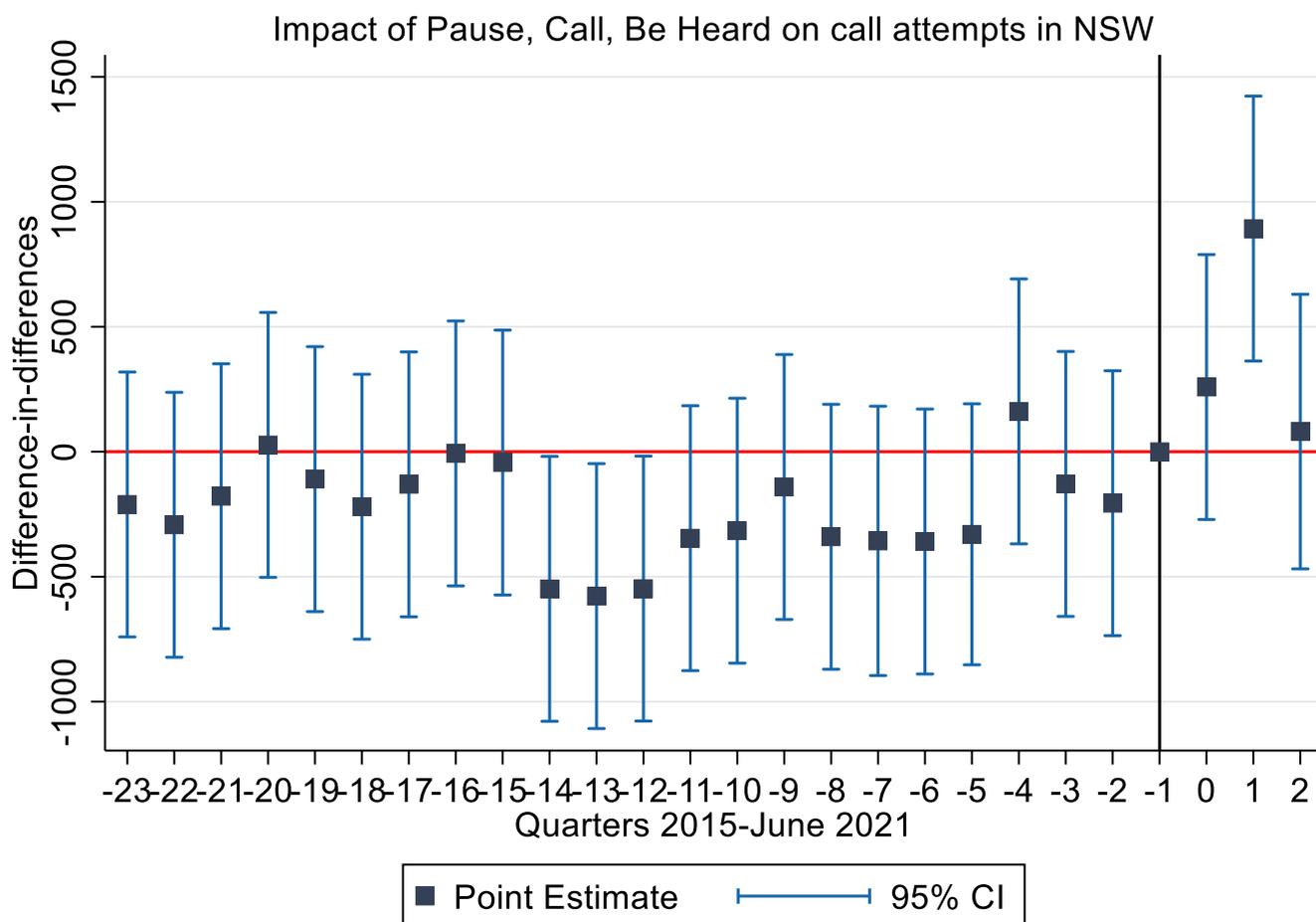


Figure 6: Graphical representation of Difference-in-differences analysis NSW versus South Australia and Tasmania

In Figure 6, the period before the solid black vertical line (the point before the commencement of the PCBH campaign) show the common trends assumption is satisfied for a DiD analysis ($F=1.30$, $p=.236$). With the exception of quarters (-14,-13, & -12 – April-December 2017 – table 1 displays a list of all quarters), the point estimates are close to zero between NSW and the control states (Tasmania & South Australia) in the period directly prior to the introduction of the PCBH campaign. Thus, satisfying the assumption of common trends necessary to use a DiD model. Figure 6 shows that the PCBH campaign has led to a causal increase in calls offered to Lifeline ($F=5.02$, $p=.002$). The point estimate in the quarter just after the intervention (0) shows a 259 increase in the call difference between NSW and Tasmania and South Australia in favour of NSW, and the differences in the following quarter are statistically significantly ($p<.01$) higher again by 893 calls, indicating that the PCBH campaign has been most effective in increasing calls being made to Lifeline in NSW three to six months after the PCBH campaign was launched. Finally, we see a drop back down to a difference of just 80 calls between NSW and Tasmania and SA in the third quarter of 2021 (2). We can be reasonably confident with these findings as the pre period included the first six months of Covid-19, indicating that the trends in NSW and the control states were similar during this period. It is not

until after the introduction of the PCBH campaign that the gaps appear in the differences between the control states and NSW.

NSW and Victoria combined regression analysis

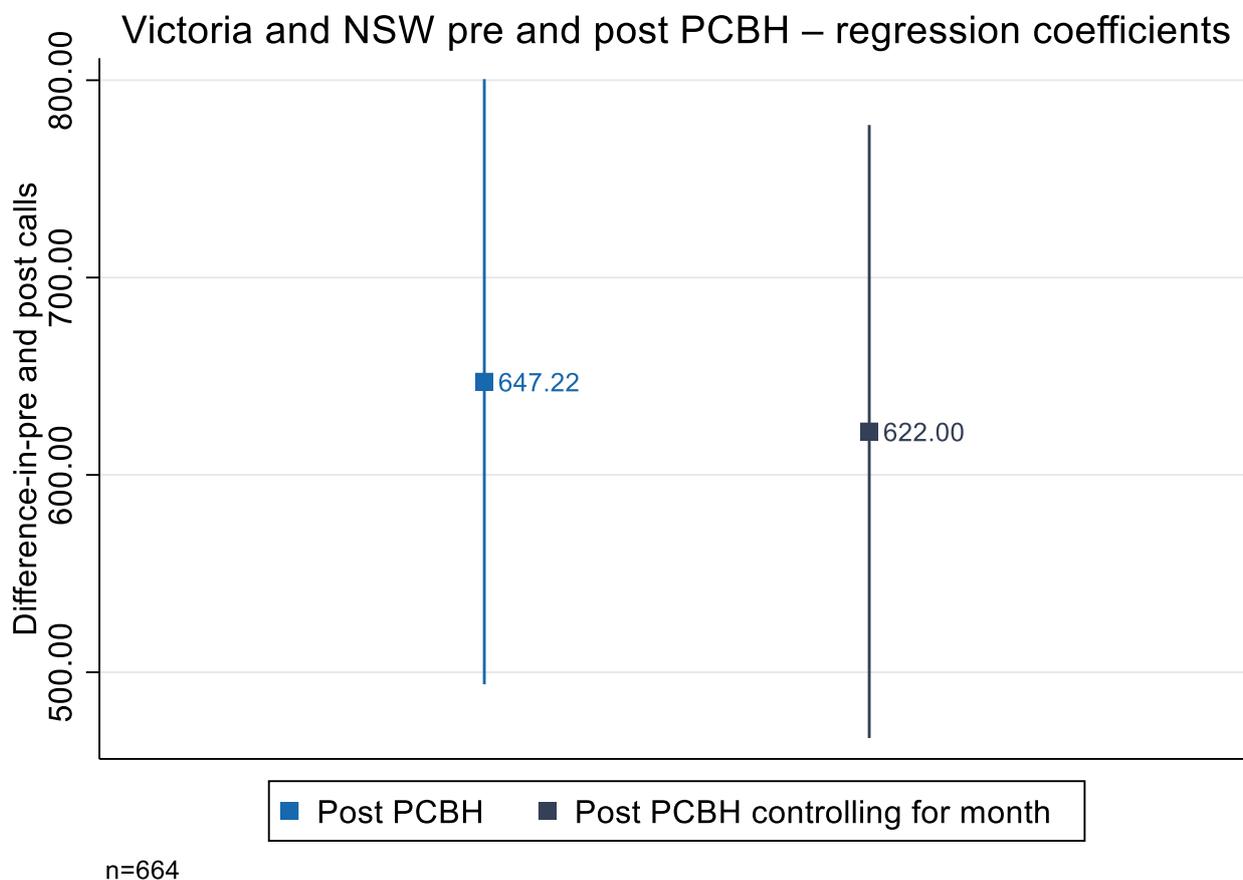


Figure 7: Plot of coefficients for pre-post regression analysis of calls offered Victoria and NSW only

A regression analysis comparing pre and post calls in VIC & NSW combined, after the introduction of the PCBH campaign, Figure 7 shows a significant increase of 647 calls to Lifeline in the three quarters (October – June 2021) after it was implemented. This relationship is maintained when we control for the month the calls were received (significant increase of 622 calls). This analysis shows that there is a positive correlation between the introduction of the PCBH campaign and the number of calls placed with Lifeline. Without controlling for the pre PCBH implementation trends, we cannot attribute the increase to the campaign as we cannot discard other reasons for the increase. Yet, we can be reasonably certain that there is a positive relationship between the introduction of PCBH in Victoria and NSW and increased calls to Lifeline.

Victoria regression analysis

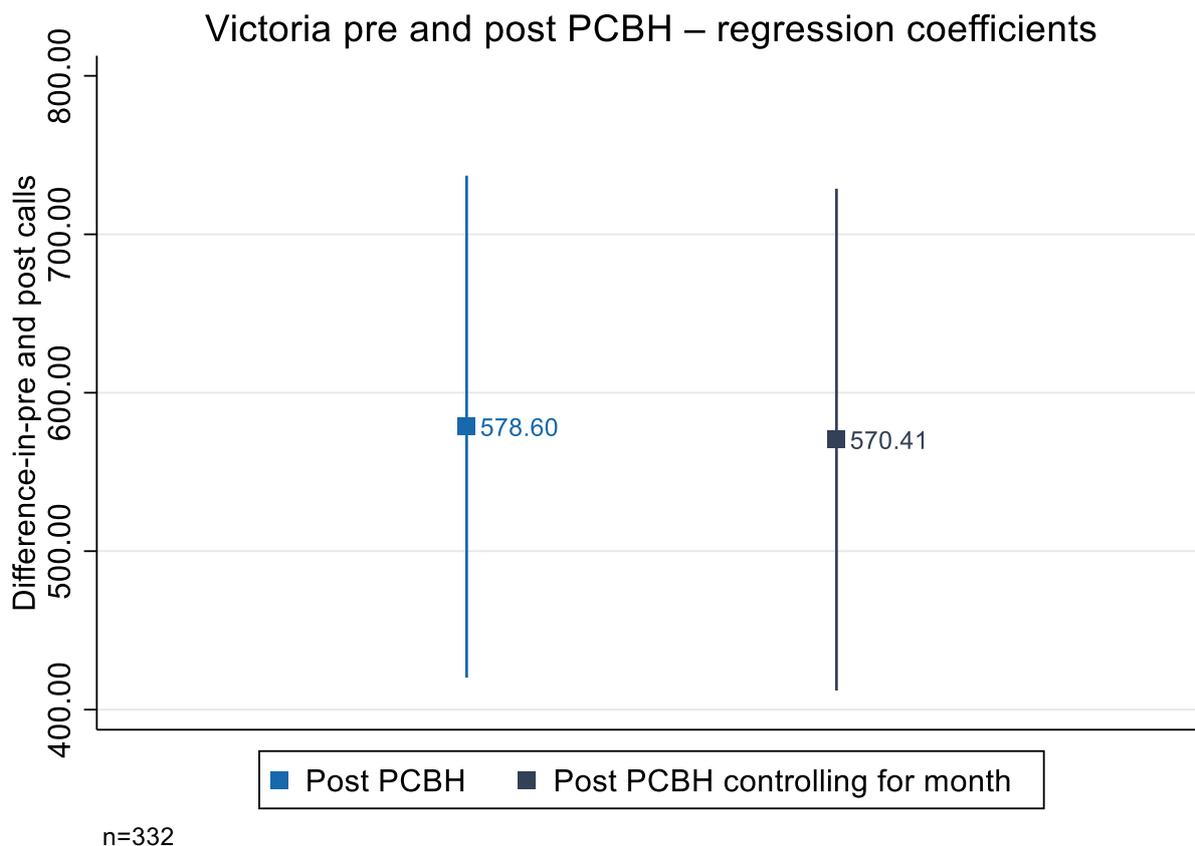


Figure 8: Plot of coefficients for pre-post regression analysis of calls offered Victoria only

A regression analysis comparing pre and post calls in Victoria after the introduction of the PCBH campaign, Figure 8 shows a significant increase of 578 calls to Lifeline in the three quarters (October – June 2021) after it was implemented. This relationship is maintained when we control for the month the calls were received (significant increase of 570 calls). This analysis shows that there is a positive correlation between the introduction of the PCBH campaign and the number of calls placed with Lifeline. Without controlling for the pre PCBH implementation trends, we cannot attribute the increase to the campaign as we cannot discard other reasons for the increase. Yet, we can be reasonably certain that there is a positive relationship between PCBH in Victoria and increased calls to Lifeline.

Survey data analysis

Figure 9 shows that survey respondents were evenly split across age groups. Figure 10 shows that NSW had a higher proportion of respondents above 70 compared with Victoria (10.6% cf. 6.8%) and a smaller proportion in the 18–24-year age range (8.2% cf. 10.2%) and 40-54 year old's (25.5% cf. 30.6%).

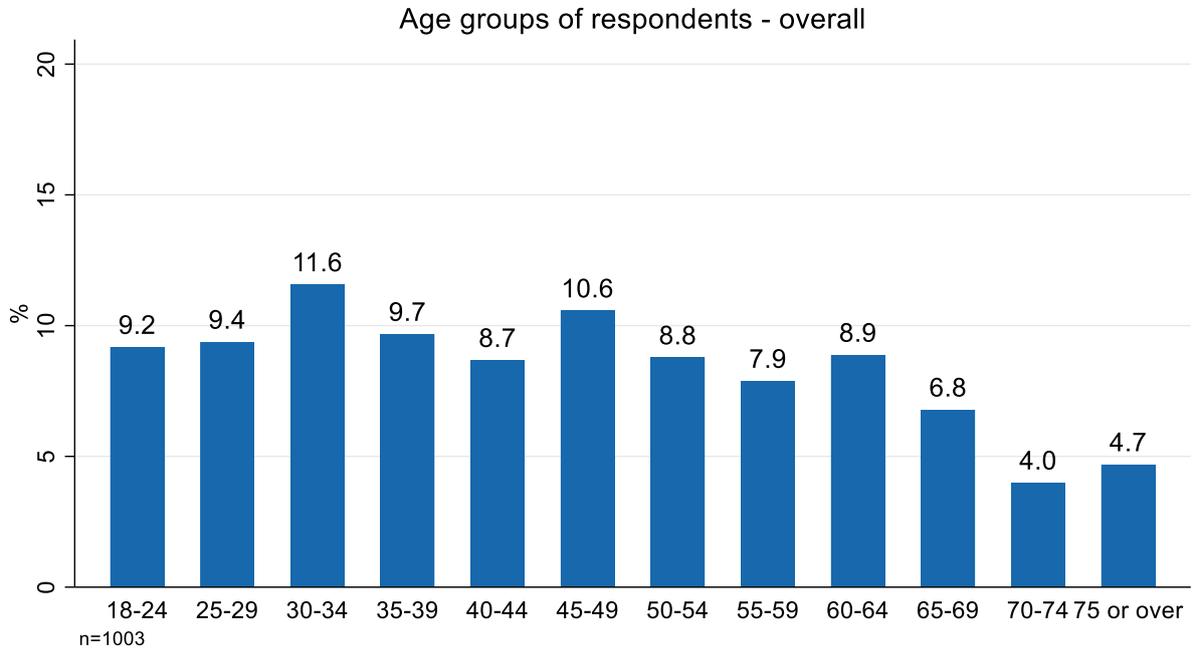


Figure 9: Age groups of all survey respondents

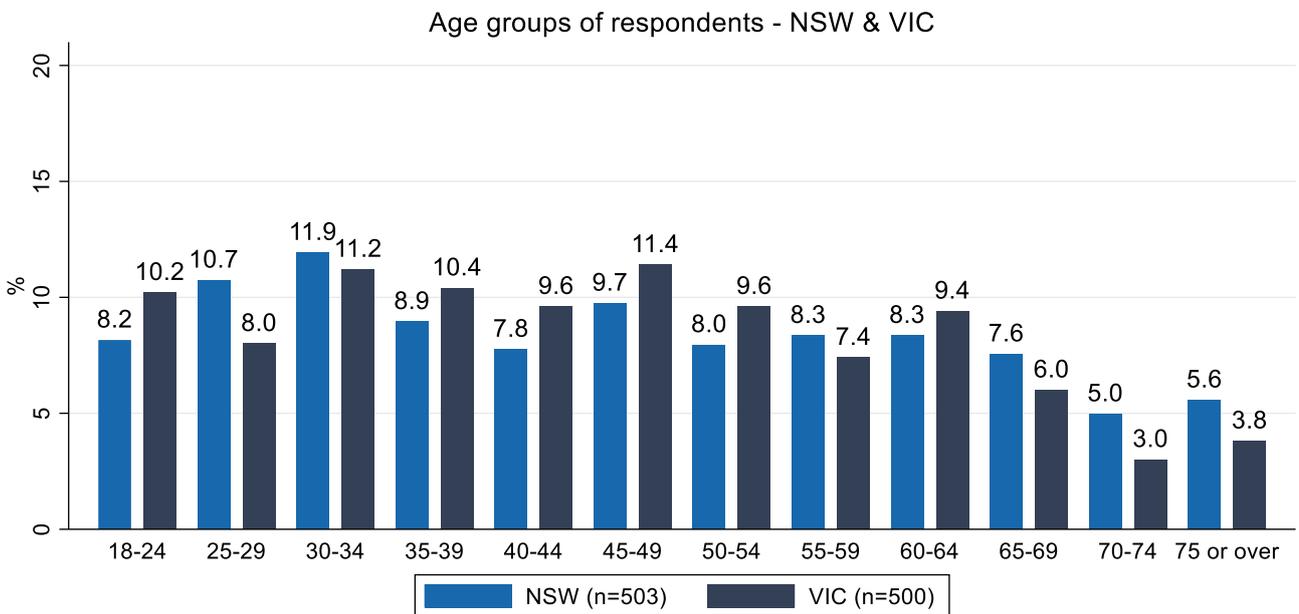


Figure 10: Age group of respondents by state

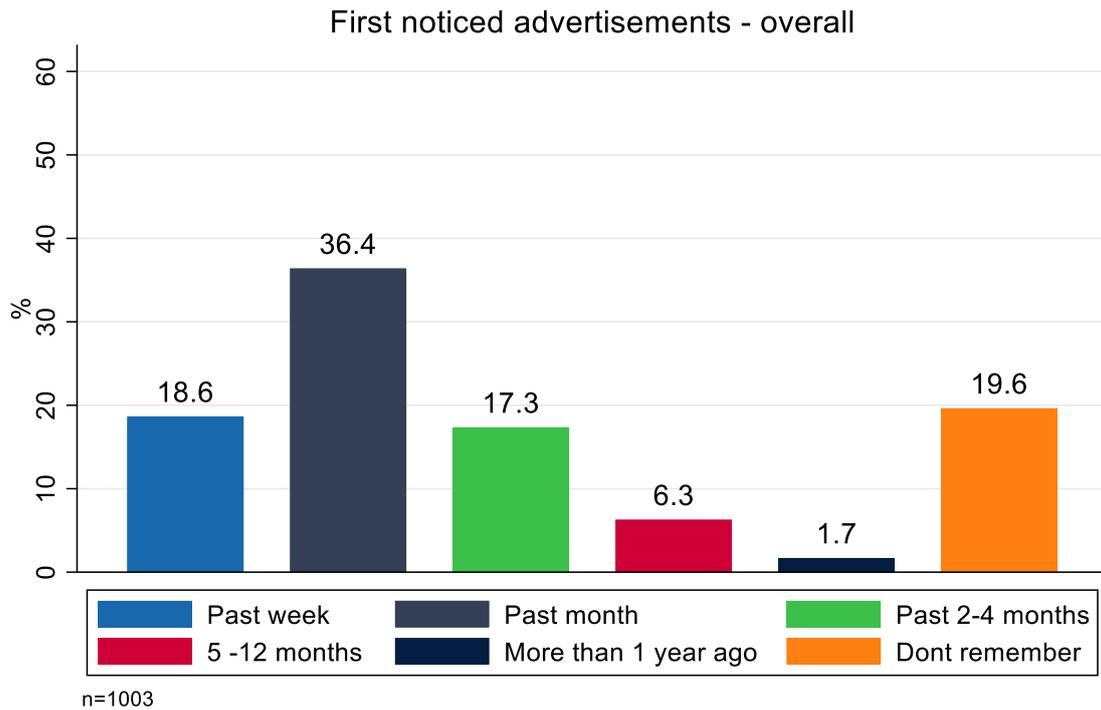


Figure 11: Time before the survey that all respondents first noticed the PCBH advertisements

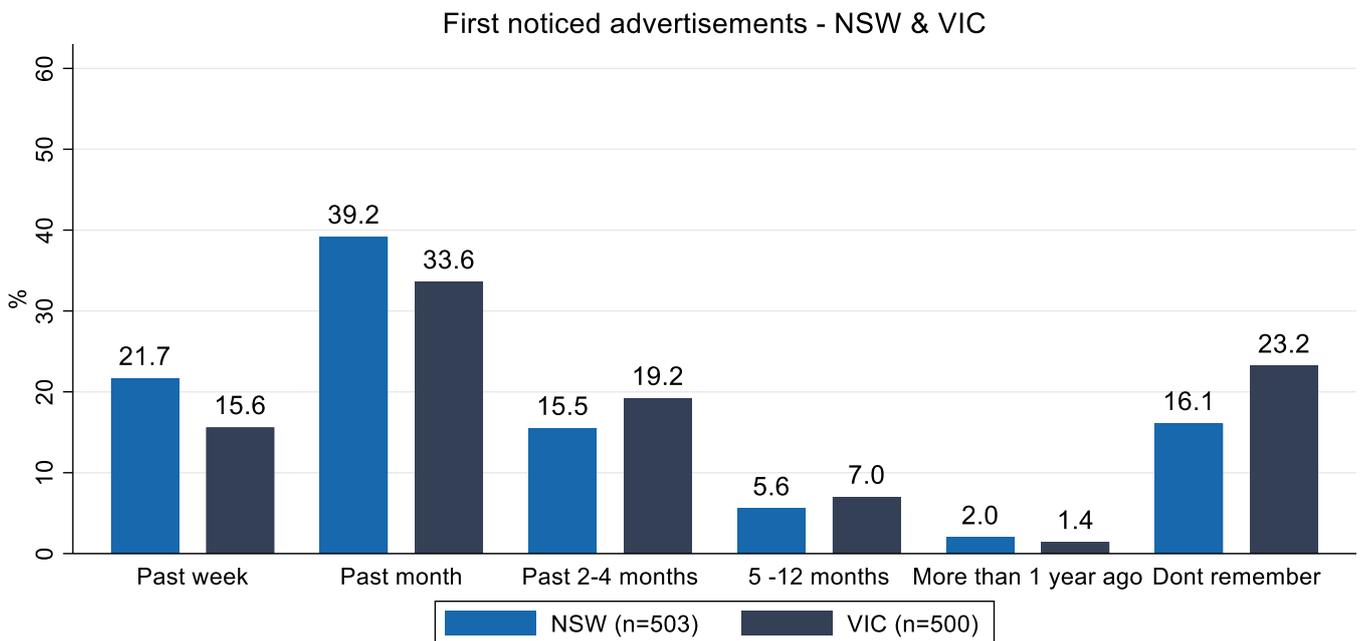


Figure 12: Time before the survey that all respondents first noticed the PCBH advertisements by state

Figure 11 shows that most respondents first noticed the advertisements within a month of completing the survey (55%). However, Figure 11 also shows that almost 20% of all respondents didn't recall when they first noticed the PCBH materials. Figure 12 shows that NSW respondents had more recent recollections of first noticing the materials than Victorian respondents with 59.9% of them reporting first noticing the materials in the past month compared with only 39.2% of Victorians. A far greater proportion of Victorians

than NSW respondents also reported not remembering when they first noticed the advertisements (23.2% cf. 16.1%).

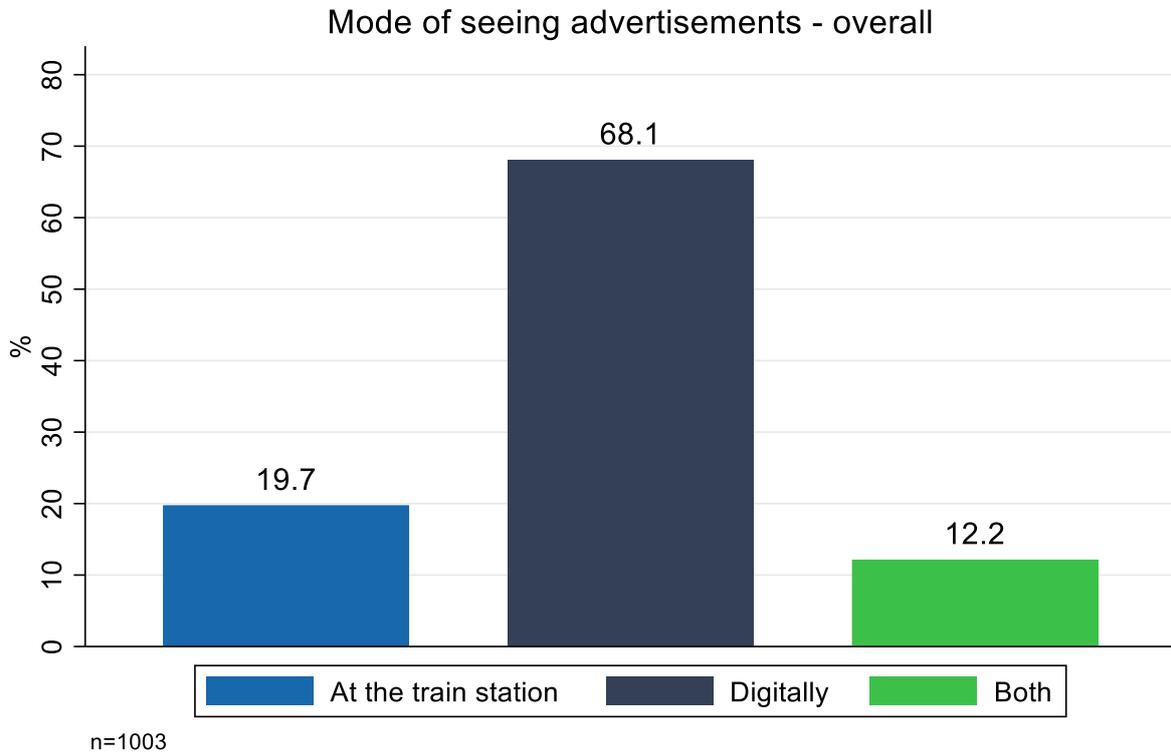


Figure 13: Mode of seeing PCBH materials

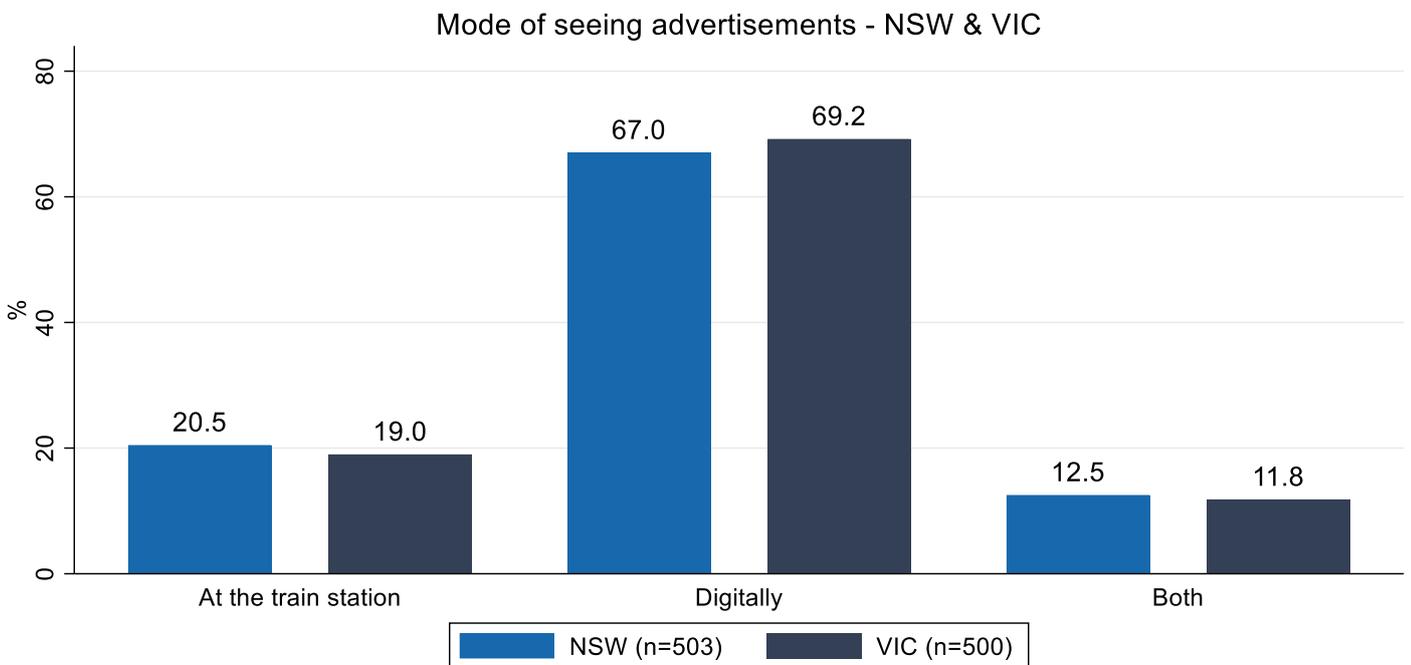


Figure 14: Mode of seeing PCBH materials by state

Figures 13 and 14 show that two out of every three respondents viewed the PCBH materials digitally (68.1%), almost one in five (19.7%) noticing them at the train station and just over one in 10 (12.2%) noticing them both digitally and at the train station with there being little difference based on whether they lived in NSW or Victoria.

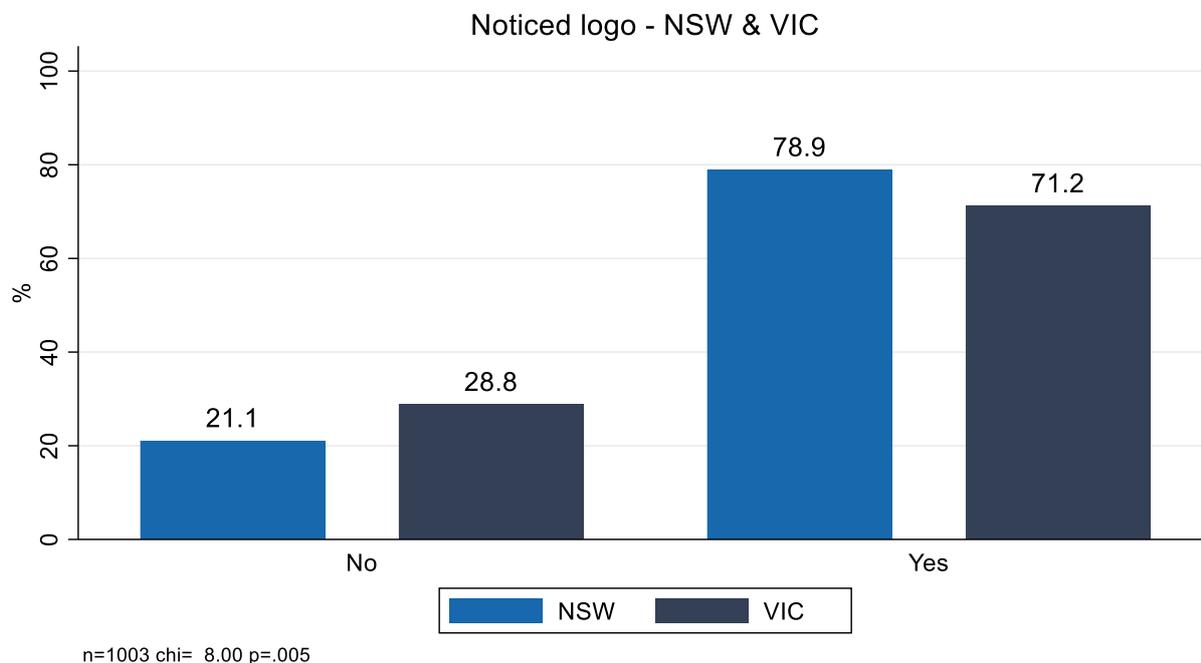


Figure 15: Whether respondents noticed the Lifeline logo by state

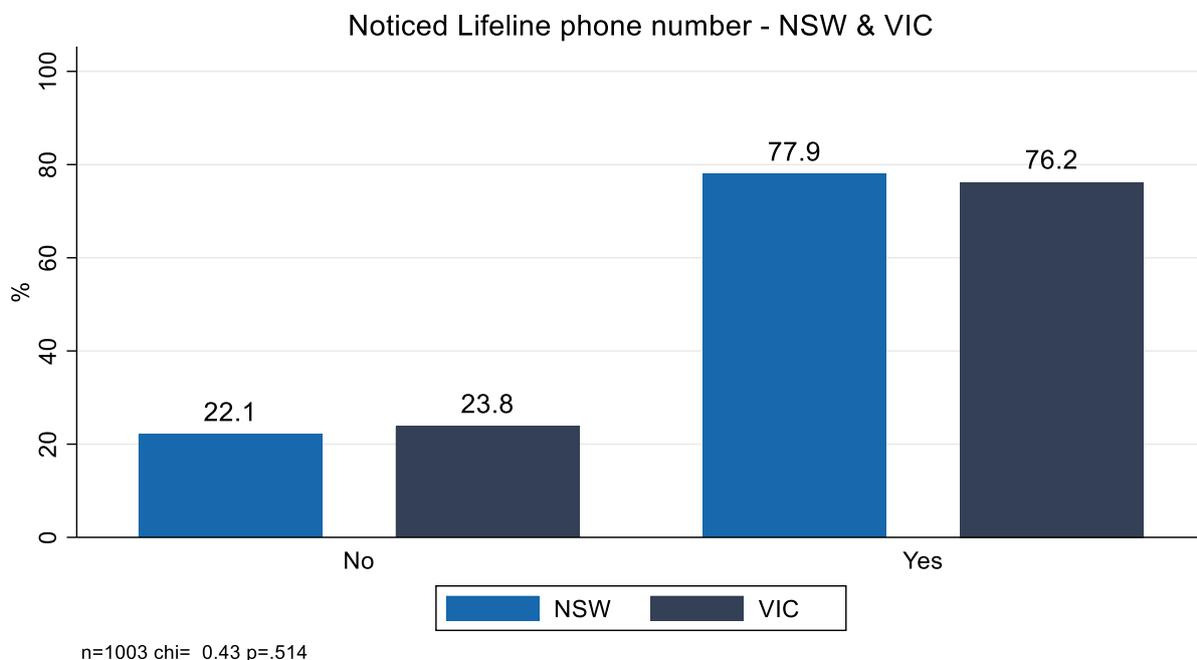


Figure 16: Whether respondents noticed the Lifeline phone number by state

Figure 15 shows that NSW respondents were statistically significantly more likely to report noticing the Lifeline logo than Victorian respondents (78.9% cf. 71.2%, $p = .005$). However, Figure 16 shows that there

was no practical difference between respondents from either state when it came to recognising the Lifeline phone number, with just over three in every four respondents reporting noticing it (77.9% of NSW respondents cf. 76.2% of Victorians). Both results indicate strong brand awareness of Lifeline amongst survey respondents.

How noticeable were each of the different modes of advertisements?

As was previously eluded, the advertisements appeared at selected train stations as well as digitally on respondents' mobile devices. A one-way between subjects ANOVA was conducted to compare the effect of the mode respondents viewed the PCBH advertisements on their ratings of how noticeable the design/look of advertisement.

There was a significant effect of mode of seeing the PCBH advertisement on respondents' ratings of how noticeable the design/look of advertisement at the $p < .05$ level for the three modes [$F(2, 1000) = 12.74, p < 0.001$].

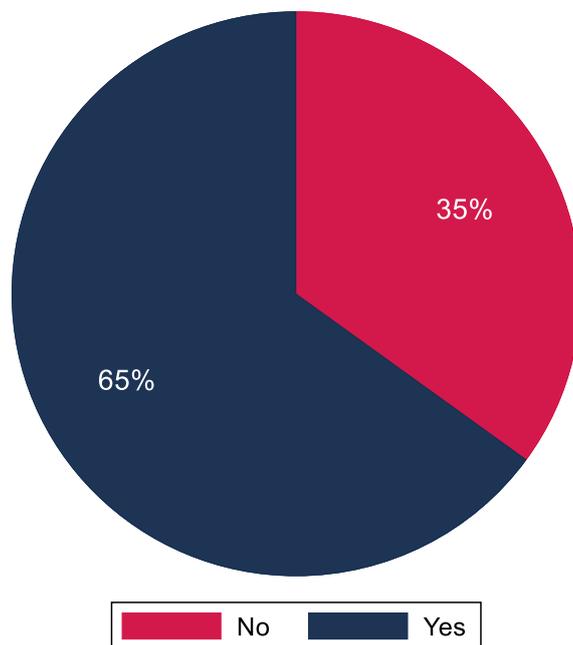
Noticeability of advertisements	Placement at the train station Mean (SD)	Design/look Mean (SD)
Train station (n=198)	7.18 (2.33)	7.23 (2.27)
Digitally (n=683)	NA	6.63 (2.04)
Both (n=122)	7.35 (1.88)	7.48 (1.95)

Post hoc comparisons using the Bonferroni test indicated that the mean score for respondents who saw the ads both digitally and at the train station ($M = 7.48, SD = 1.95$) was significantly different ($p < .001$) than respondents that reported seeing the PCBH advertisements digitally ($M = 6.63, SD = 2.04$). However, respondents who only viewed the advertisements at the train station ($M = 7.23, SD = 2.27$) differed significantly ($p < .05$) from respondents who saw just the digital versions but did not differ significantly from those who viewed the advertisements both ways ($p > .05$).

There was no statistically significant difference regarding the placement of the advertisements at the train station between respondents who viewed the advertisements this way.

Engagement with the PCBH materials

Any engagement with advertisements



n=1003

Figure 17: Percentage of respondents reporting engaging with at least one of the PCBH materials

Figure 17 shows that 65 percent of all 1003 respondents reported at least one form of engagement with the Lifeline Pause, Call, Be Heard advertising materials. We performed a logistic regression analysis to determine the likelihood of engaging with the PCBH material based on the mode of seeing advertisements. We also adjusted for the location (coded 1 if respondents lived in Victoria and 0 if they lived in NSW), gender (coded 1 if respondents are male and 0 if they are female), age (coded 1 if respondents were 45 and above and 0 if they were 44 and under), self-report mental health rating (coded 1 if respondents rated their mental health 5 or higher and 0 if they rated it 4 and under) and whether they first noticed the advertisements in the past month (coded 1 if they did and 0 if they first noticed the advertisements more than 1one month ago). The results are presented in Figure 18.



Figure 18: Logistic regression results for engaging with at least one of the PCBH materials

When it came to the respondents reporting engaging with the messaging in the advertisements, we found the following results statistically significant:

- Those who saw advertisements at the station were 16% more likely than those who saw them digitally
- Those who saw advertisements both at the station and digitally were 12% more likely than those who saw them digitally only
- Males are 9% more likely to report engaging with ads than females
- Those 45 and over are 19% less likely than those aged 44 and under to report engaging with the advertisements
- Those who first noticed the advertisements within the past month were 9% more likely than those who saw them more than a month ago

Reactions to the advertisements by mode of seeing advertisements

We also performed logistic regression analysis to determine the likelihood of respondent's reactions to the PCBH material based on the mode of seeing advertisements. Again, we adjusted for the location, gender, age, self-report mental health rating, and whether they first noticed the advertisements in the past month. All coded the same as the previous logistic regression. The results are presented in Figures 19-23. Each regression is preceded by the descriptive statistics (in graphical form) that accompany the regression

model of the reaction by mode of viewing the advertisement without adjusting for any of the any covariates (mode of seeing advertisements, location, gender, age, self-report mental health rating and time of first noticing the PCBH material).

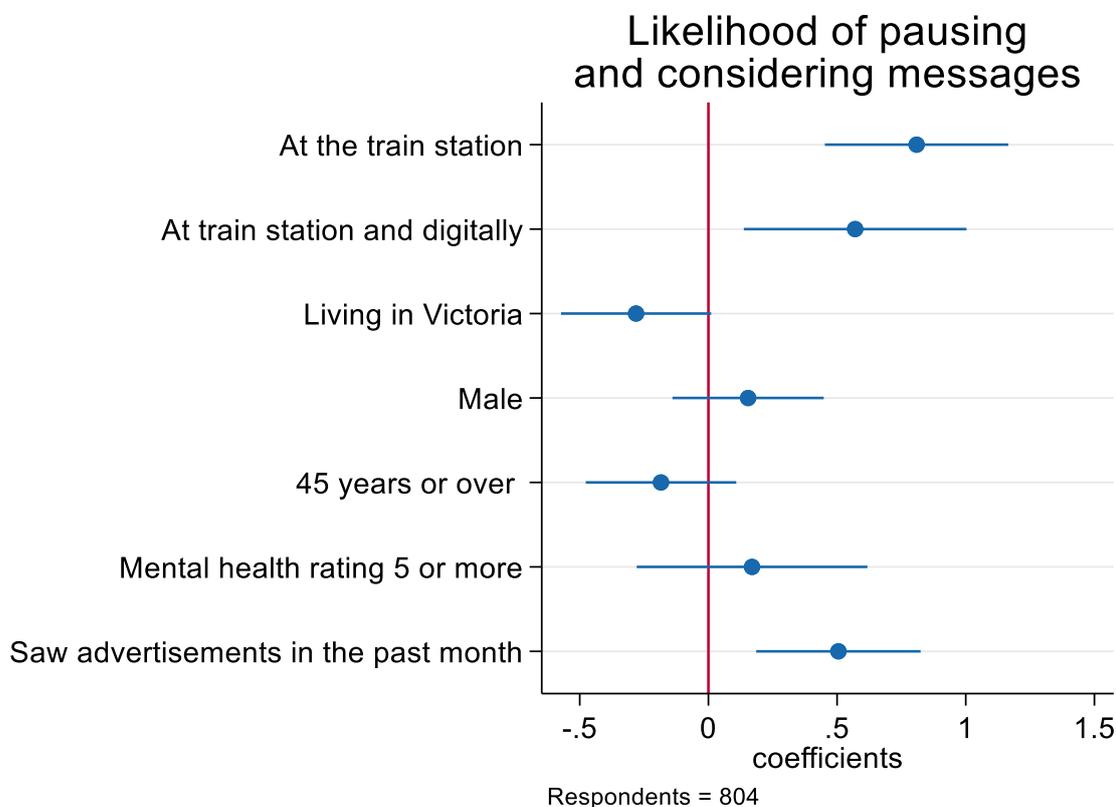
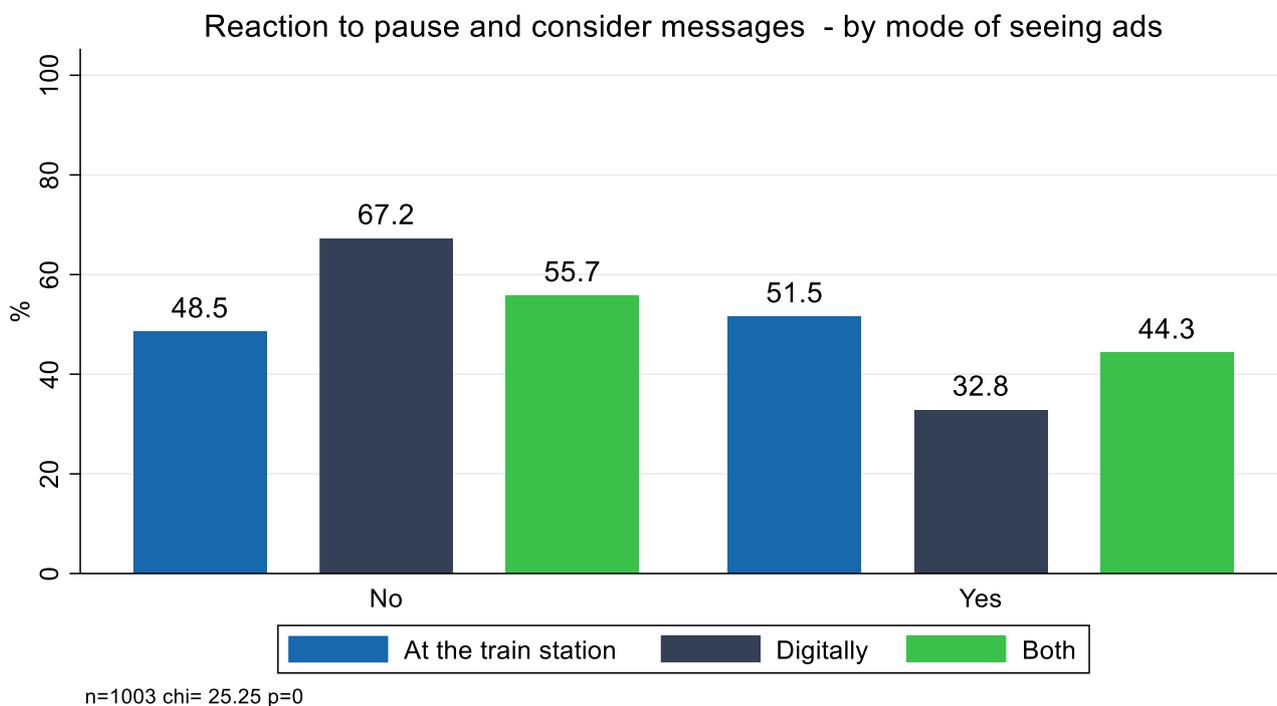
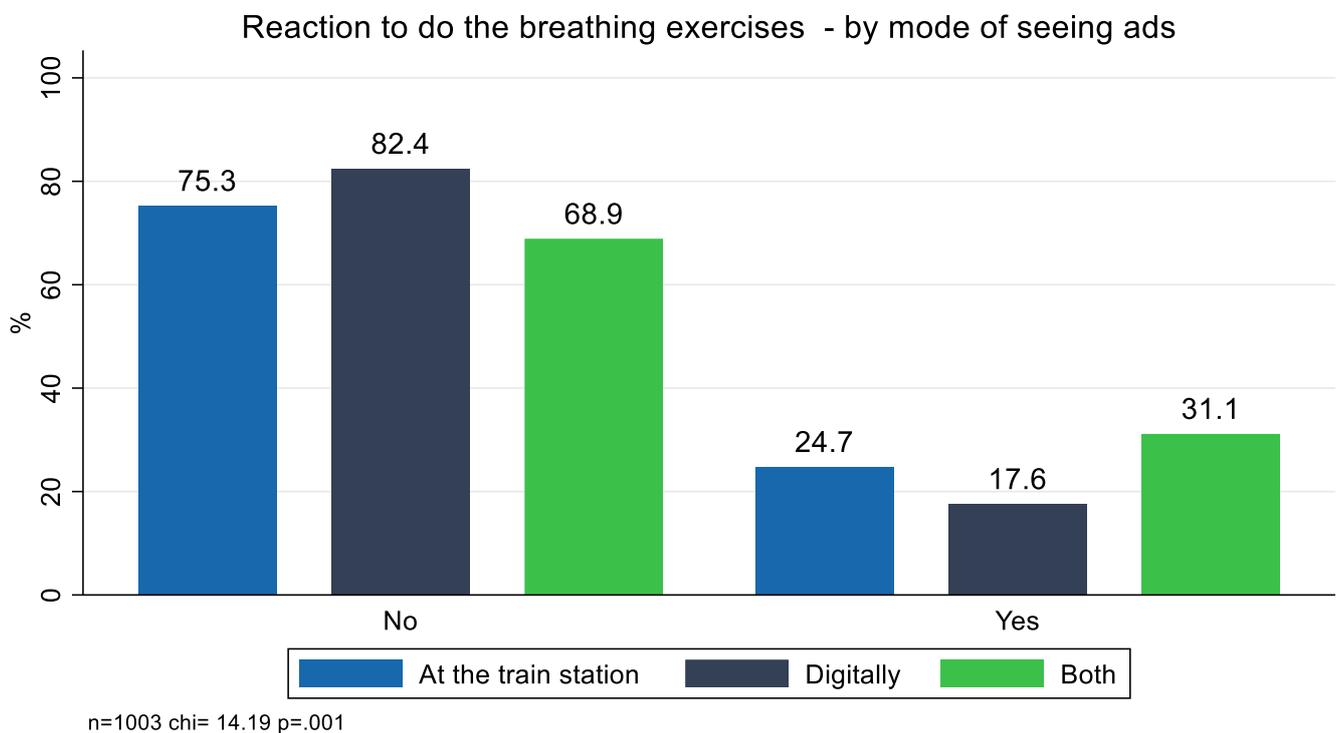


Figure 19: Likelihood of having a reaction to pause and consider the messages of the PCBH materials

When it came to the reaction to pause and consider the messaging in the advertisements, we found the following results statistically significant from Figure 19 (please note a result is statistically significant at $p < .05$ if the confidence intervals (horizontal blue lines) do not cross over the vertical red line in each figure):

- 37.9% of respondents reported pausing and considering the messages in the advertisements
- Those who saw the advertisements at the station 17% more likely than those who viewed the advertisements digitally whilst those who viewed the advertisements both digitally and at the station were 13% more likely than those who saw them digitally only
- Those who first noticed the advertisements in past month were 12% more likely to report pausing and considering the messages



When it came to the reaction to perform the breathing exercises in the advertisements (Figure 20 below), we found the following results statistically significant:

- 20.6% of respondents reported doing the breathing exercises in the advertisements
- Those who viewed the advertisements both digitally and at the station were 12% more likely than those who saw them digitally only
- Those aged 45 and over 9% less likely than those aged 44 and under
- Those with a self-report mental health rating of 5 or more are 12% more likely than those who rate their mental health at 4 or below

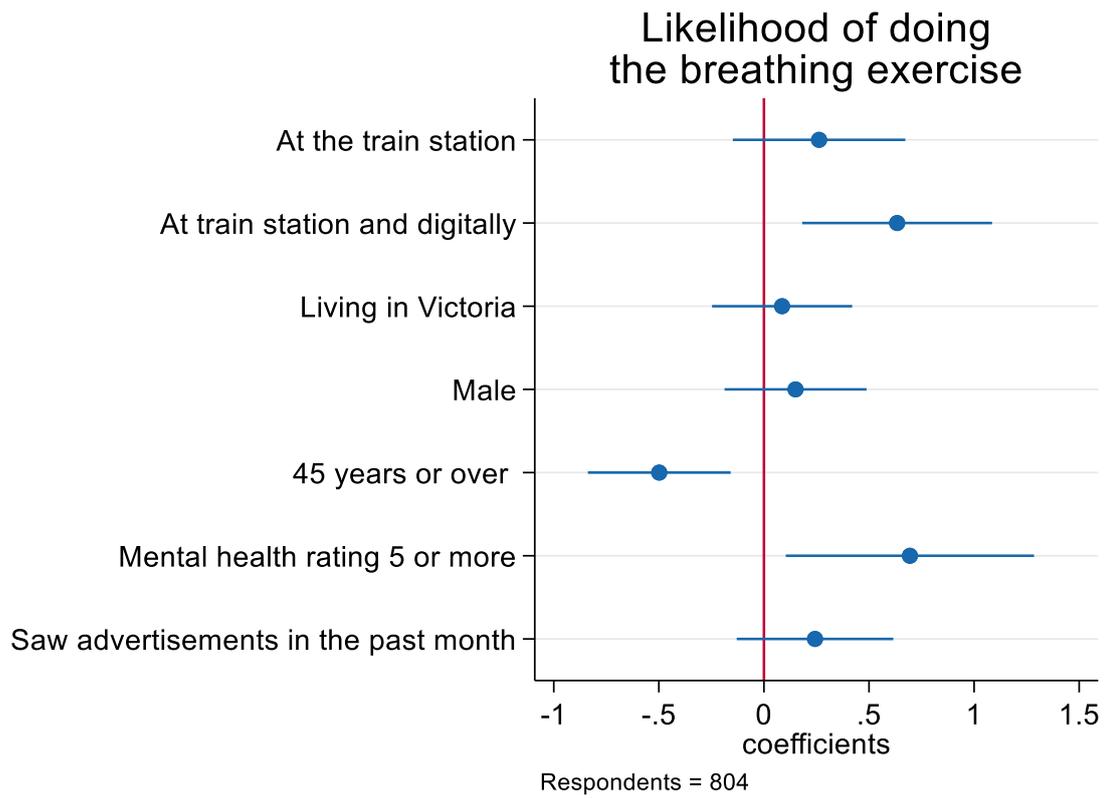


Figure 20: Likelihood of having a reaction to do the breathing exercise of the PCBH materials

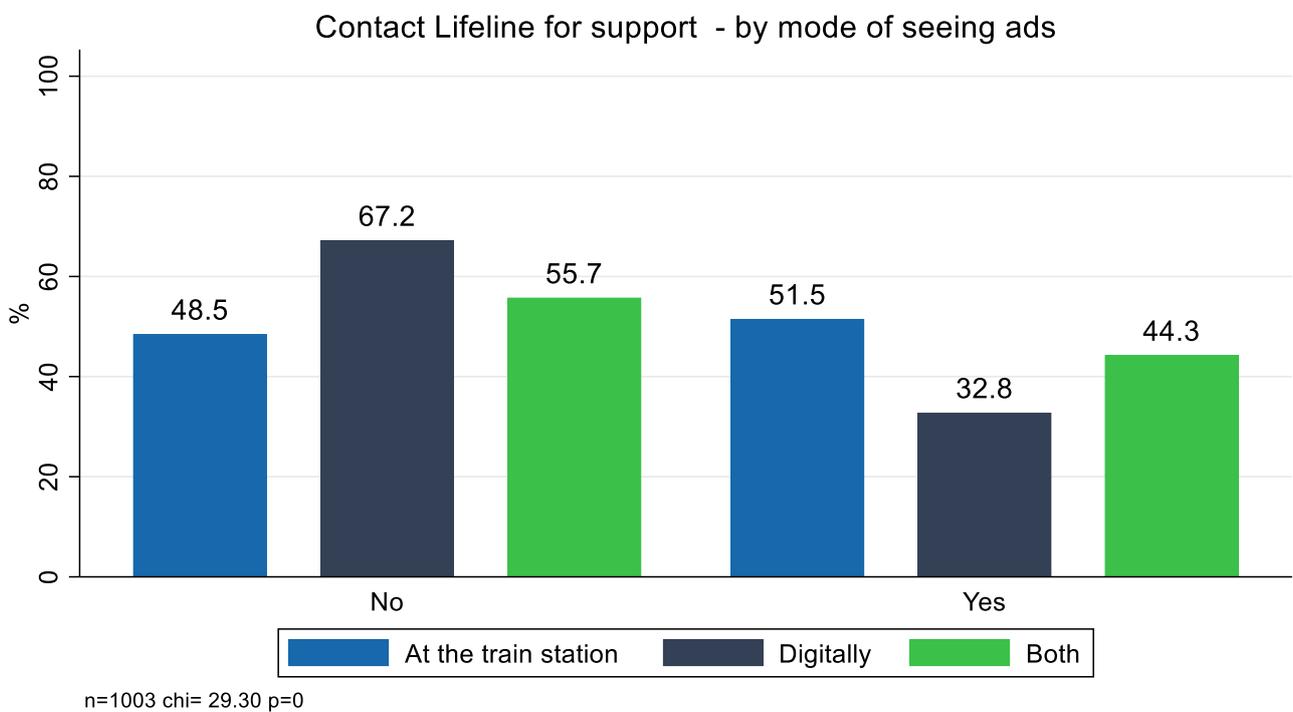
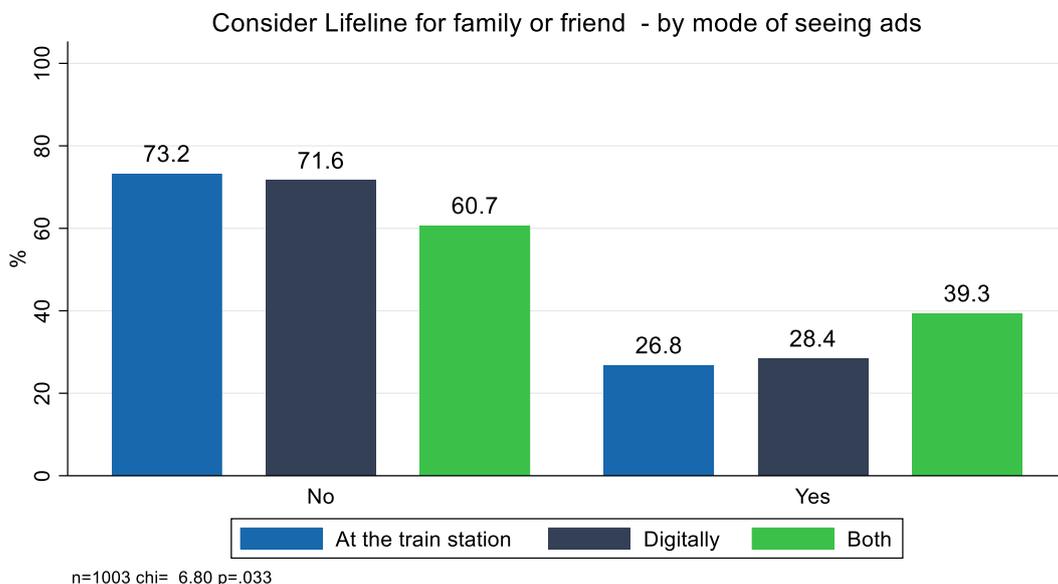




Figure 21: Likelihood of having a reaction to call Lifeline after viewing the PCBH materials

When it came to the reaction to consider calling Lifeline in the advertisements (Figure 21), we found the following results statistically significant:

- 23.9% of respondents reported having a reaction to contact Lifeline for themselves after viewing the advertisements
- Those who viewed the advertisements both digitally and at the station were 10% more likely than those who saw them digitally only. Those who saw them at the train station were 14% more likely than those who viewed the advertisements digitally only
- Those aged 45 and over 13% less likely than those aged 44 and under



When it came to the reaction to thinking about Lifeline for family or friends in the advertisements (Figure 22), we found the following results statistically significant:



Figure 22: Likelihood of having a reaction to contemplate Lifeline support for family or a friend after viewing the PCBH materials

- 29.4% of respondents reported having a reaction to contemplate Lifeline support for family or a friend after viewing the advertisements
- The mode of viewing the advertisements was not a significant predictor of experiencing this reaction
- Those aged 45 and over 8% less likely than those aged 44 and under
- Those with a self-report mental health rating of 5 or more are 16% more likely than those who rate their mental health at 4 or below

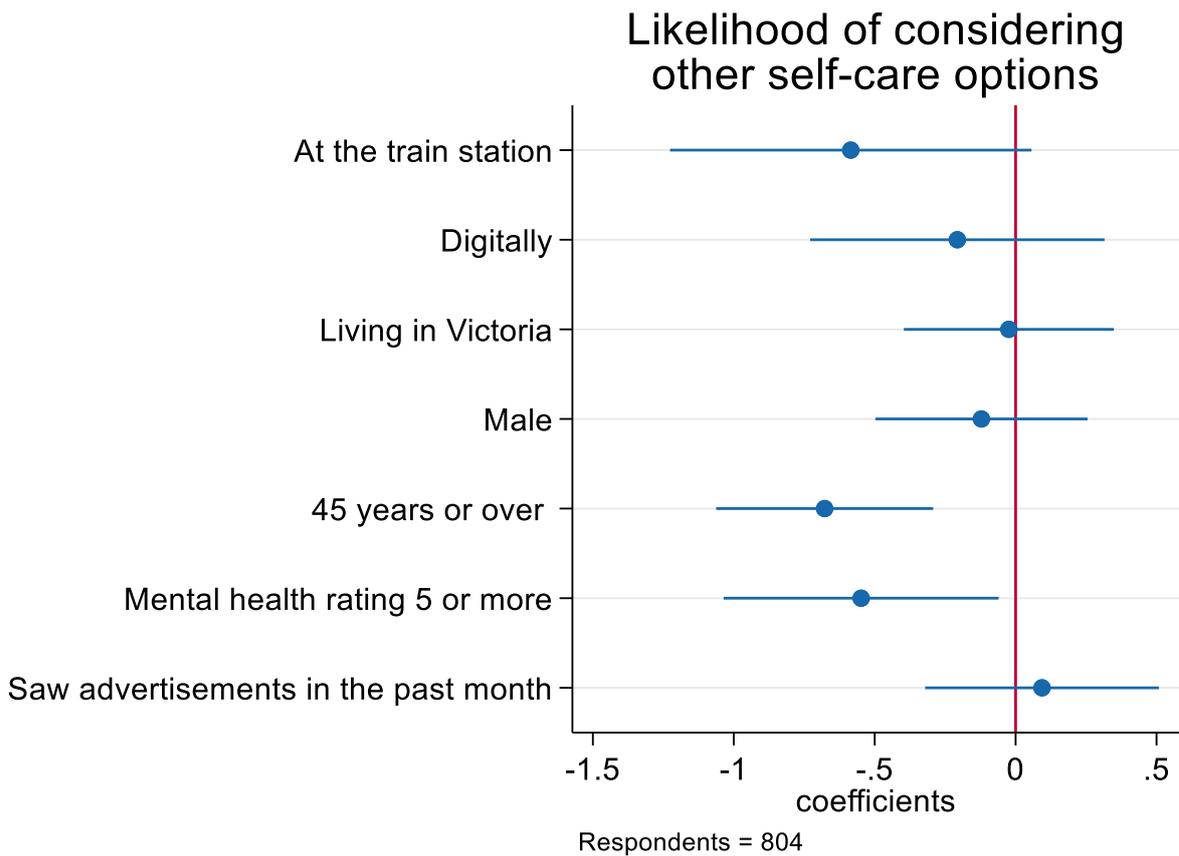
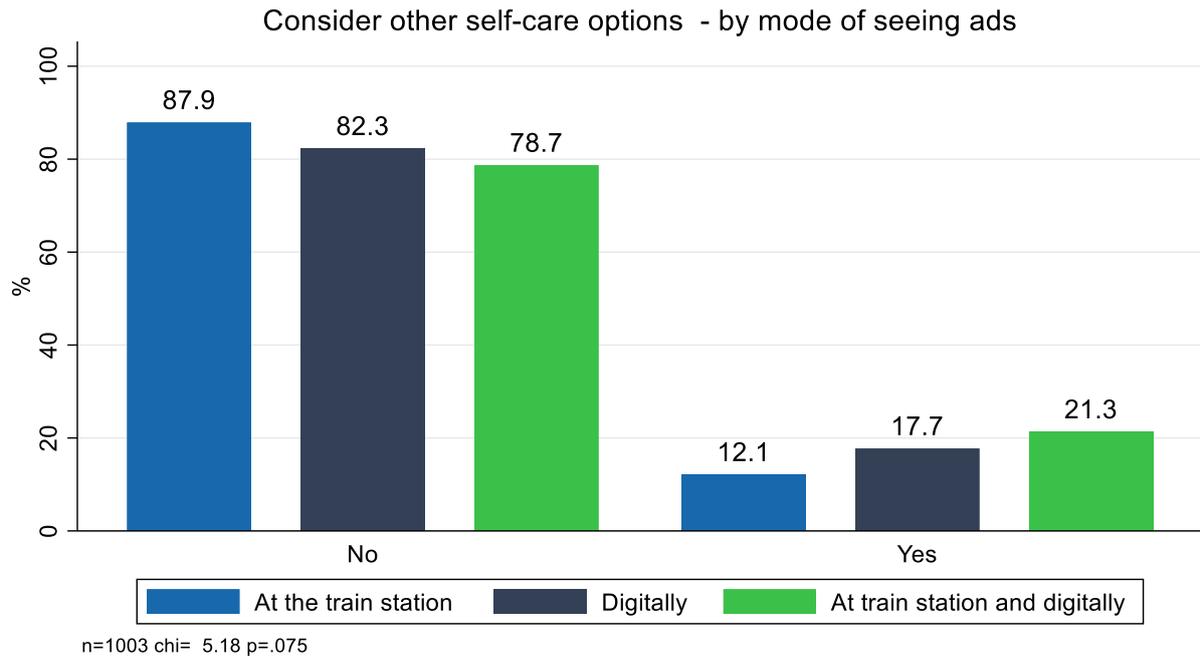


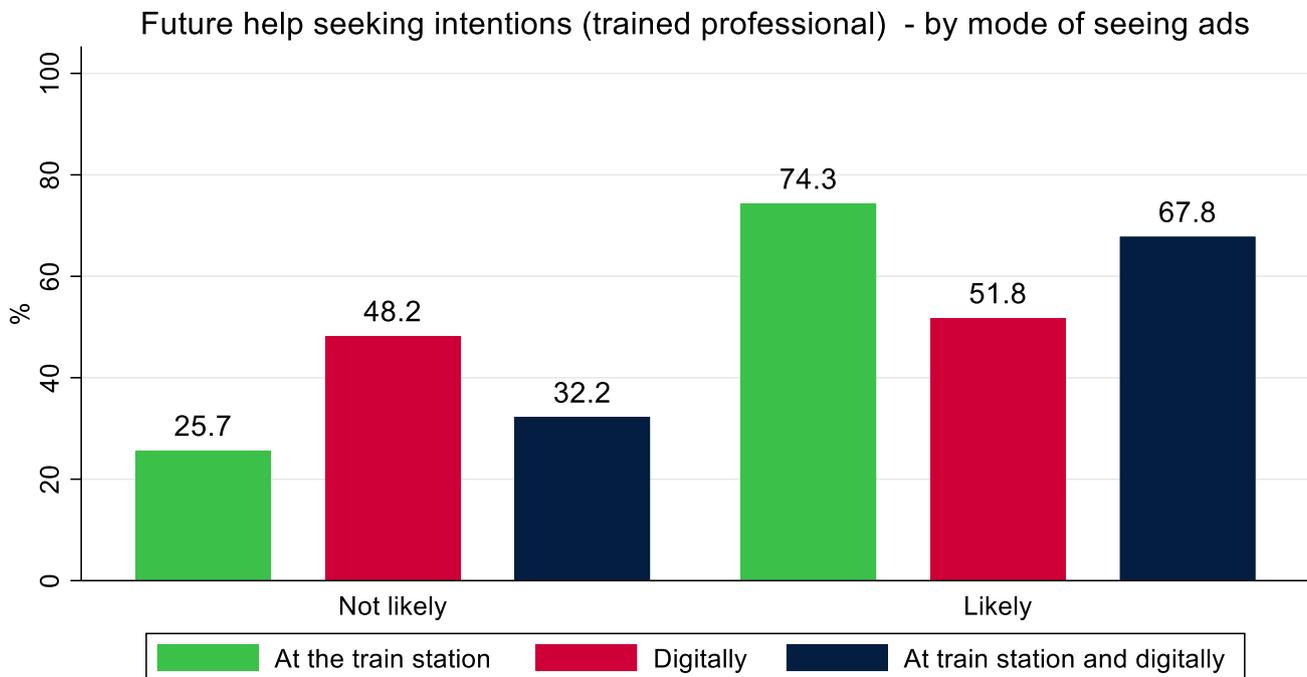
Figure 23: Likelihood of having a reaction to consider other self-care options after viewing the PCBH materials

When it came to the reaction to consider other self-care options in the advertisements (Figure 23), we found the following results statistically significant:

- 17.1% of respondents had the reaction to consider other self-care options after viewing the advertisements
- The mode of viewing the advertisements was not a significant predictor of experiencing this reaction
- Those aged 45 and over 10% less likely than those aged 44 and under
- Those with a self-report mental health rating of 5 or more are 8% less likely than those who rate their mental health at 4 or below

Help seeking intentions after viewing the PCBH materials by mode of seeing advertisements

We also performed logistic regression analysis to determine the likelihood of respondent's future help-seeking behaviour after viewing the PCBH material based on the mode of seeing advertisements. We grouped responses to questions about help-seeking behaviour after seeing the advertisements (coded 1 if respondents selected likely, very likely or extremely likely to seek help and 0 if they indicated they were unlikely, very unlikely, or extremely unlikely to seek help). Again, we adjusted for the location, gender, age, self-report mental health rating, and whether they first noticed the advertisements in the past month. All were coded the same as the previous logistic regression. The results are presented in Figures 24-28. Each regression is preceded by the descriptive statistics (in graphical form) that accompany the regression model of the reaction by mode of viewing the advertisement without adjusting for any of the any covariates (mode of seeing advertisements, location, gender, age, self-report mental health rating and time of first noticing the PCBH material).



n=931 chi= 35.55 p=0

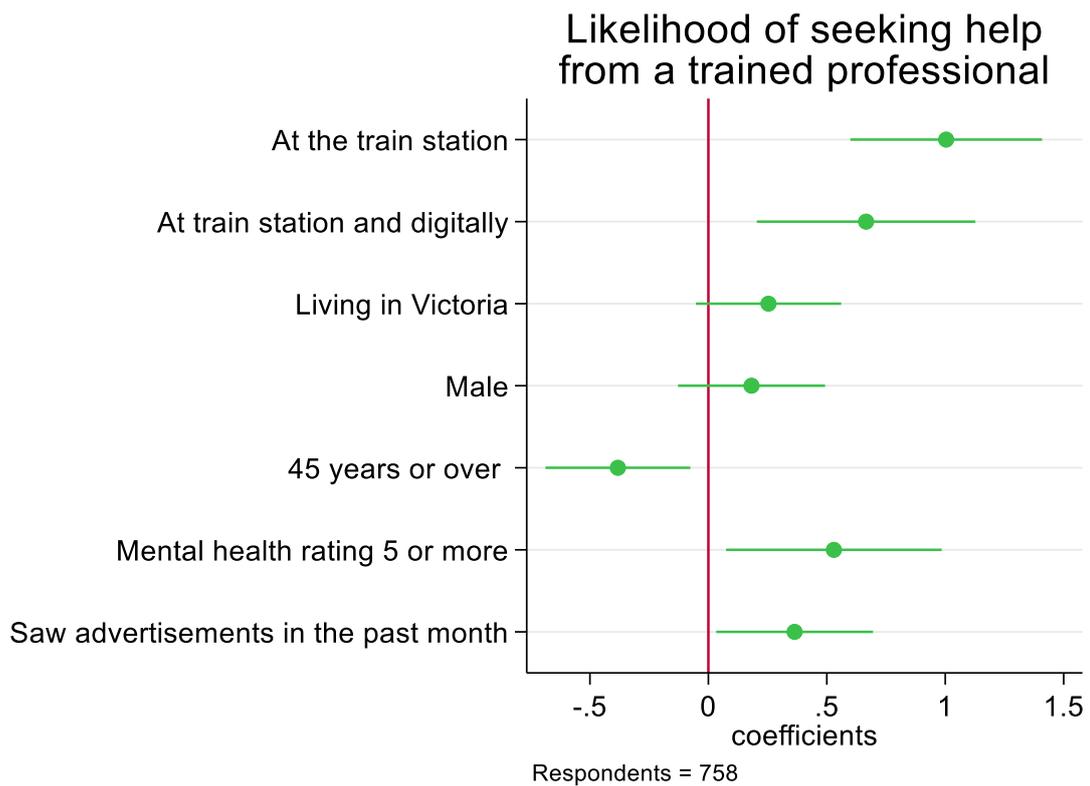


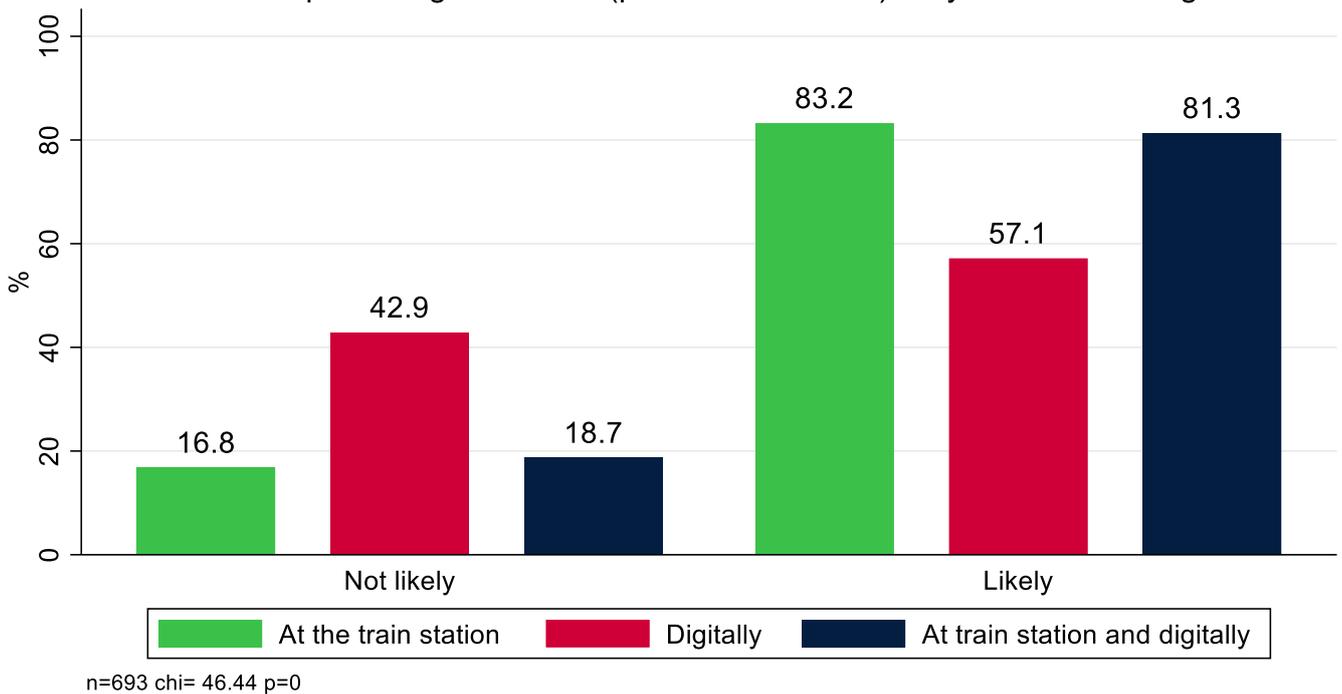
Figure 24: Likelihood of seeking help from a trained professional after viewing the PCBH material

When it came to future help-seeking intentions from a trained professional, we found the following results statistically significant:

- 58.4% of respondents were likely to seek help from a trained professional after viewing the advertisements
- Those who saw advertisements at the station were 21% more likely than those who saw them digitally
- Those who saw advertisements both at the station and digitally were 15% more likely than those who saw them digitally only
- Those 45 and over are 8% less likely than those aged 44 and under
- Those with a self-report mental health rating of 5 or more are 12% more likely than those who rate their mental health at 4 or below
- Those who first noticed the advertisements within the past month were 8% more likely than those who saw them more than a month ago

However, when we restrict the sample to just those who reported engaging with the materials, only those who saw the advertisements at the station and those with a positive self-report mental health rating remain statistically significant

Future help seeking intentions (partner or relative) - by mode of seeing ads



Likelihood of seeking help from a partner or relative

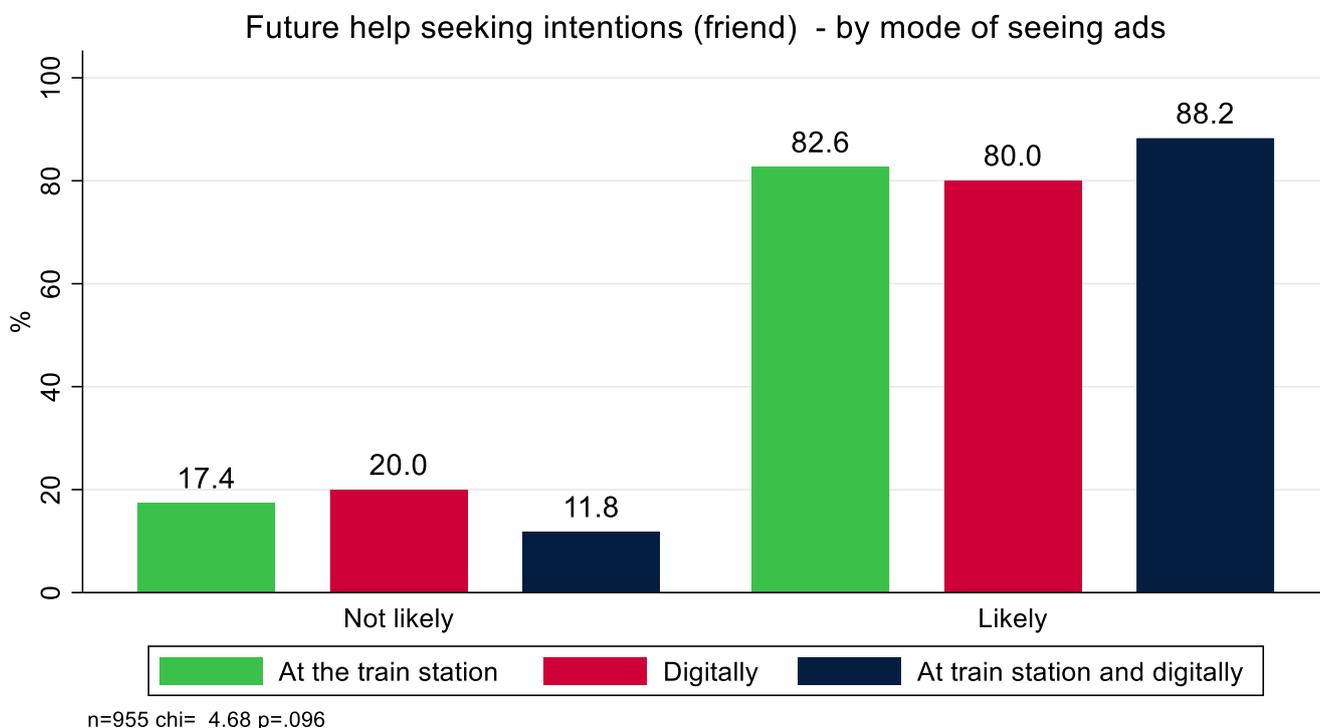


Figure 25: Likelihood of seeking help from a partner or relative after viewing the PCBH material

When it came to future help-seeking intentions from a partner or relative, we found the following results statistically significant:

- 66.4% of respondents were likely to seek help from a partner or relative after viewing the advertisements
- Those who saw advertisements at the station were 19% more likely than those who saw them digitally
- Those who saw advertisements both at the station and digitally were 16% more likely than those who saw them digitally only
- Males are 11% more likely than females
- Those 45 and over are 10% less likely than those aged 44 and under
- Those with a self-report mental health rating of 5 or more are 16% more likely than those who rate their mental health at 4 or below
- Those who first noticed the advertisements within the past month were 8% more likely than those who saw them more than a month ago

However, when we restrict the sample to just those who reported engaging with the materials, only those who saw the advertisements at the station remain statistically significant



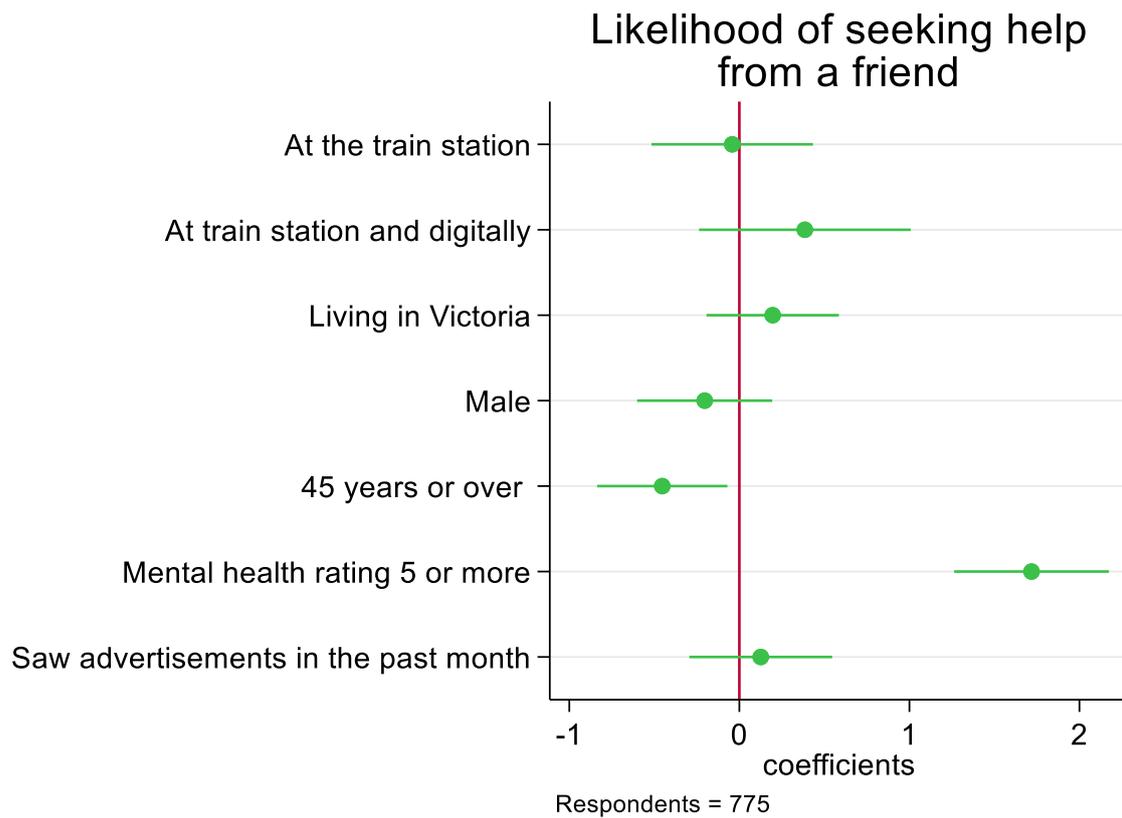


Figure 26: Likelihood of seeking help from a friend after viewing the PCBH material

When it came to future help-seeking intentions from a friend, we found the following results statistically significant:

- 81.6% of respondents were likely to seek help from a friend after viewing the advertisements
- Those 45 and over are 6% less likely than those aged 44 and under
- Those with a self-report mental health rating of 5 or more are 23% more likely than those who rate their mental health at 4 or below

However, when we restrict the sample to just those who reported engaging with the materials, only those who self-reported a positive mental health rating remain statistically significant

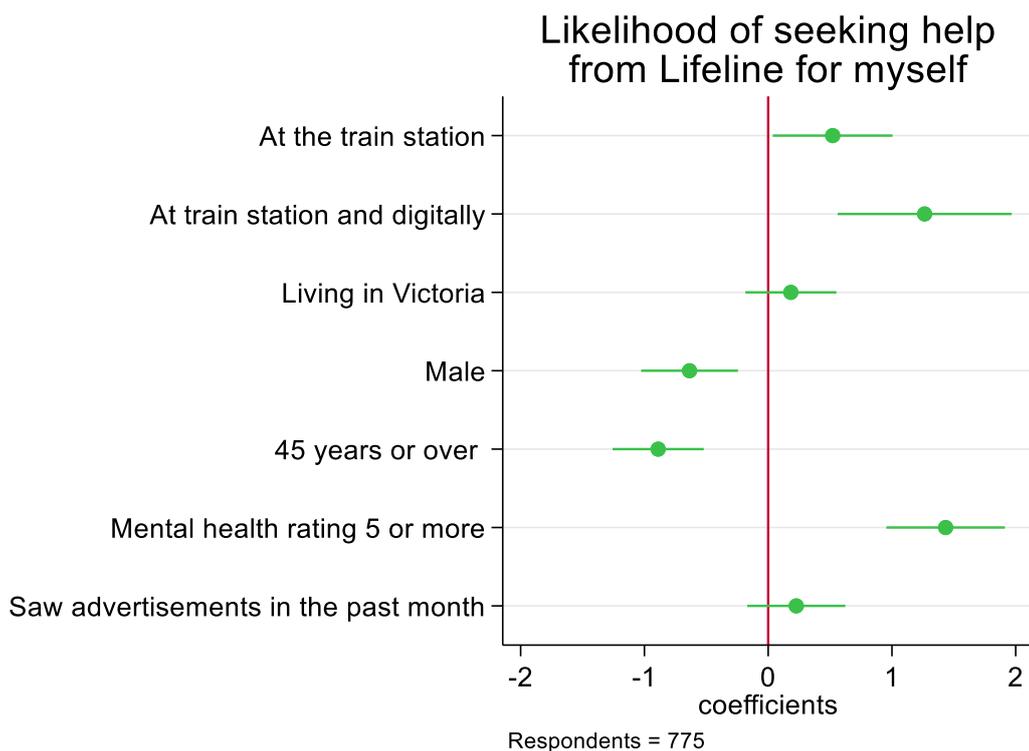
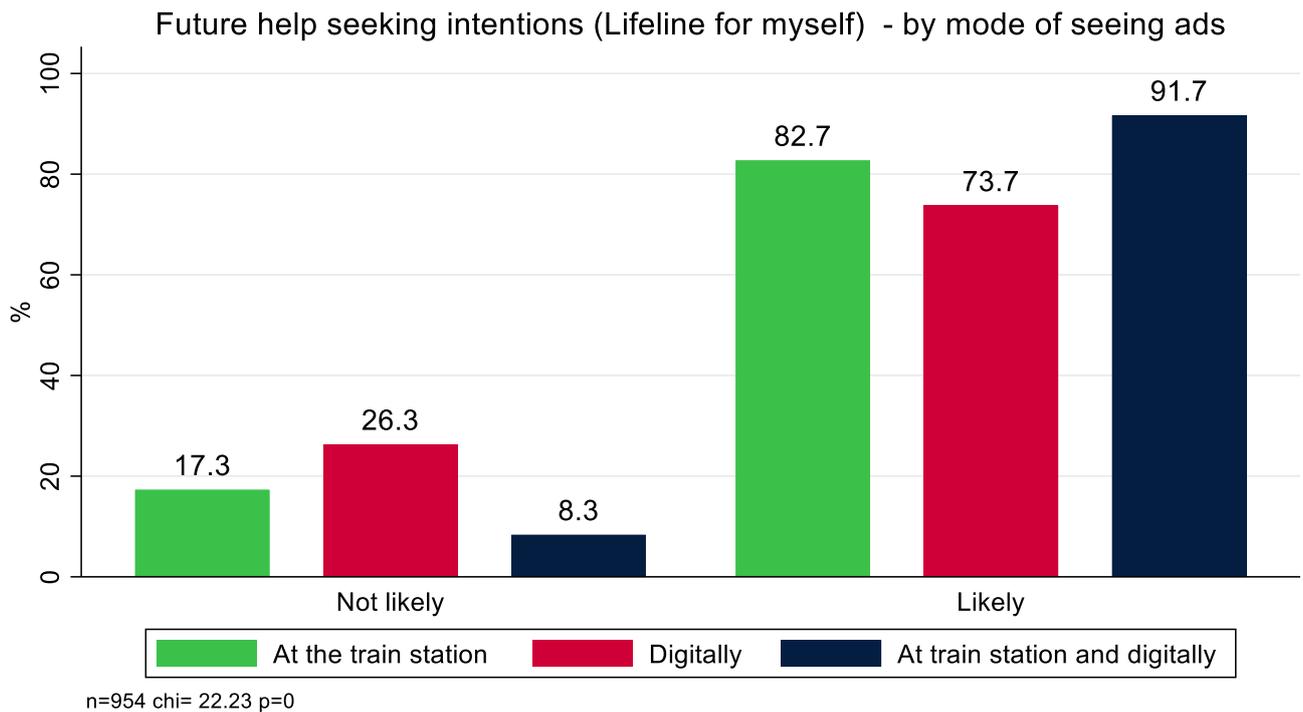


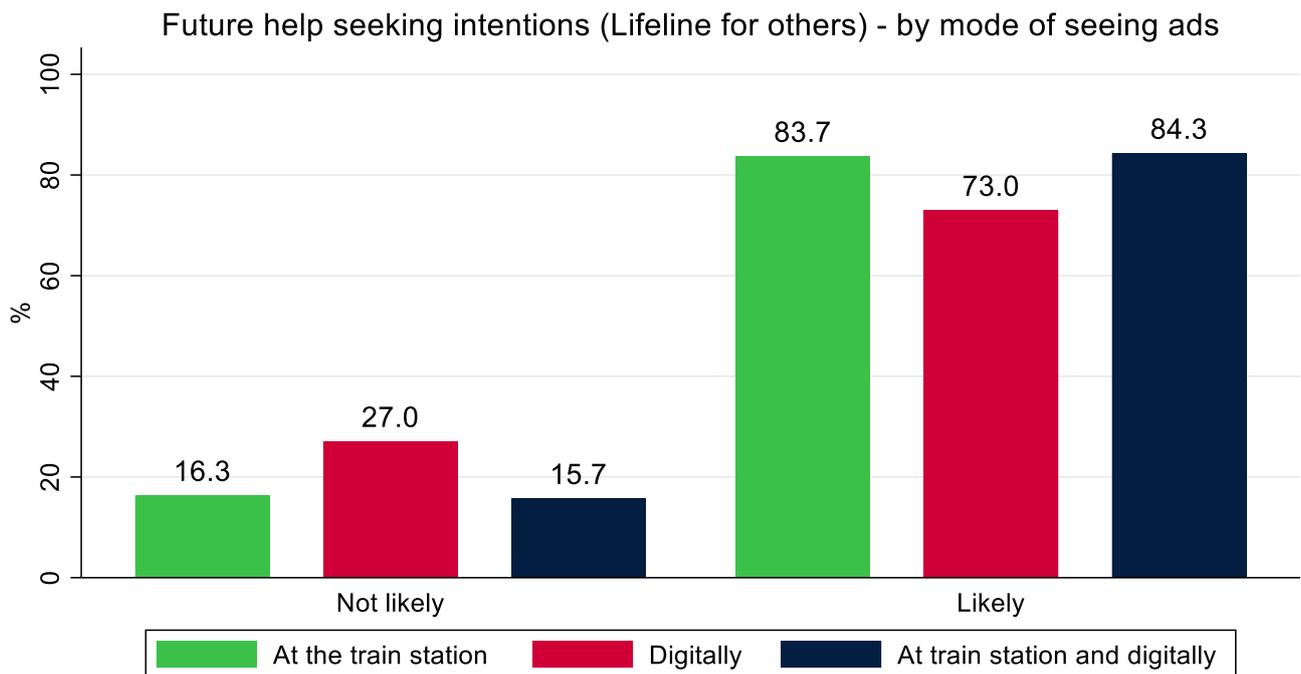
Figure 27: Likelihood of seeking help from Lifeline for myself after viewing the PCBH material

When it came to future help-seeking intentions from Lifeline for themselves, we found the following results statistically significant:

- 77.8% of respondents were likely to seek help from Lifeline for themselves after viewing the advertisements

- Those who saw the advertisements at the station were 8% more likely than those who saw them digitally only
- Those who saw advertisements both at the station and digitally were 16% more likely than those who saw them digitally only
- Males are 9% less likely than females
- Those 45 and over are 13% less likely than those aged 44 and under
- Those with a self-report mental health rating of 5 or more are 21% more likely than those who rate their mental health at 4 or below
- Those who first noticed the advertisements within the past month were 8% more likely than those who saw them more than a month ago

However, when we restrict the sample to just those who reported engaging with the materials, the time of first noticing the advertisements did not remain statistically significant.



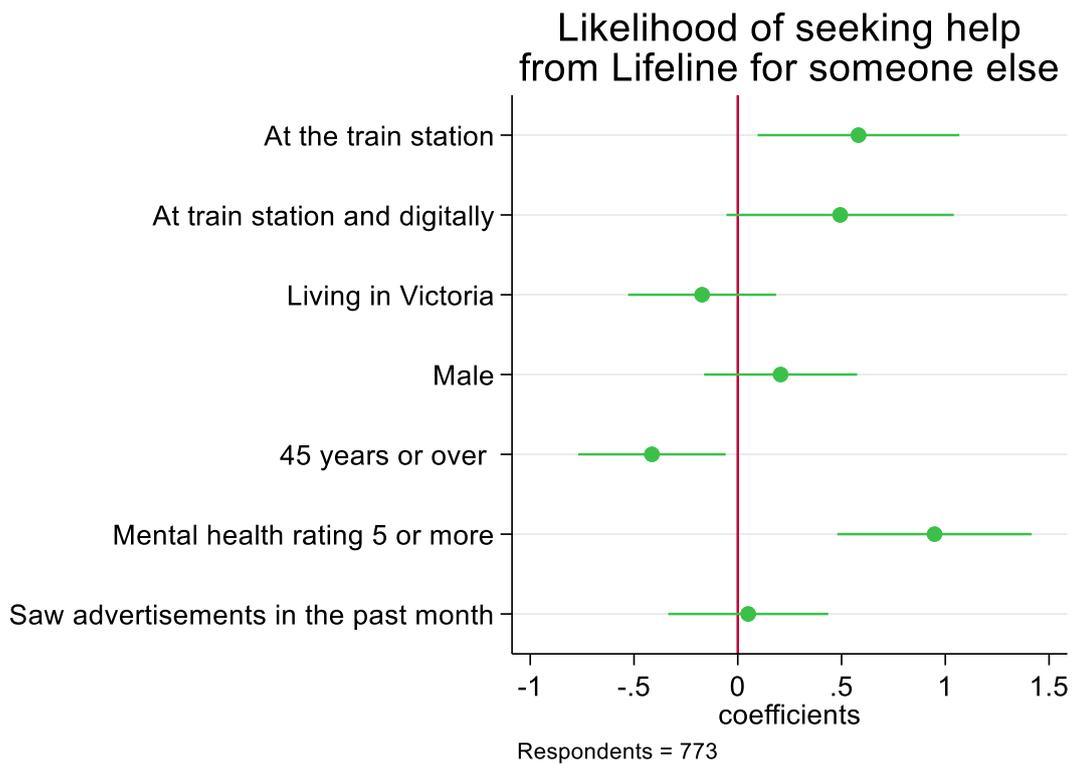


Figure 28: Likelihood of seeking help from Lifeline for someone else after viewing the PCBH material

When it came to future help-seeking intentions from Lifeline for someone else, we found the following results statistically significant:

- 76.6% of respondents were likely to seek help from Lifeline for someone else after viewing the advertisements
- Those who saw the advertisements at the station were 9% more likely than those who saw them digitally only
- Those 45 and over are 7% less likely than those aged 44 and under
- Those with a self-report mental health rating of 5 or more are 15% more likely than those who rate their mental health at 4 or below

Changes in help-seeking behaviour

Help-seeking and planning scores prior to completing the survey and help-seeking and future planning intentions

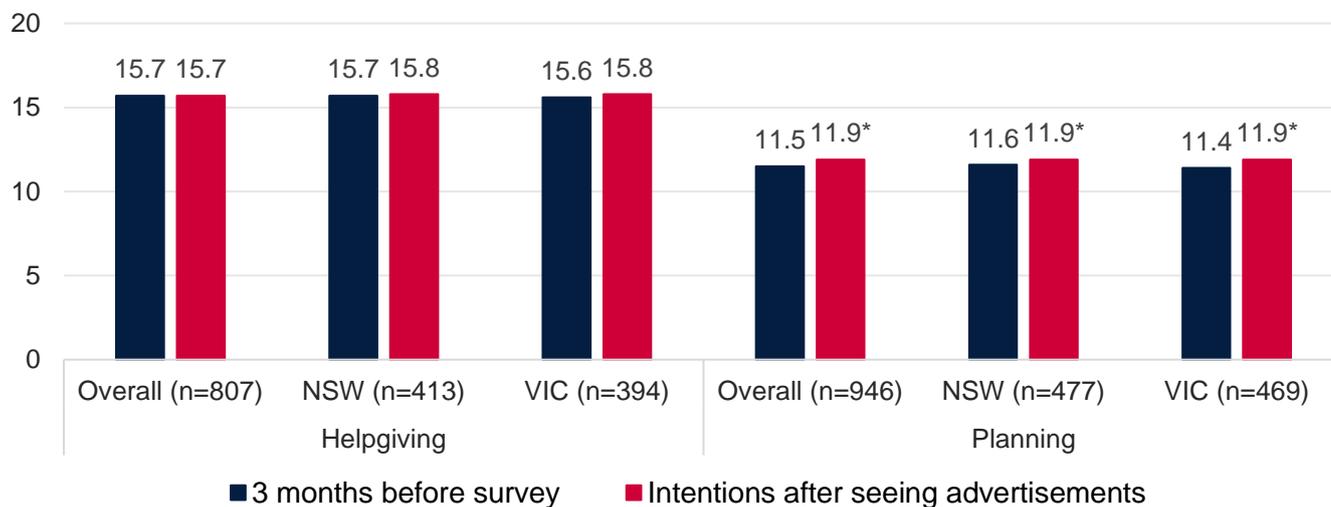


Figure 29: Changes in reported help-seeking and planning behaviour after viewing PCBH materials

Note: An Asterix* above any pink column indicates a statistically significant change for that measure between time periods.

A one-group pretest-posttest quasi-experimental design was used to determine whether exposure to the PCBH campaign had a significant effect on respondents help-seeking behaviours. To address potential threats to internal validity that result from a one-group design, we used recommendations of also including a non-equivalent dependent variable from Shadish et al. (2002). Therefore, the basic logic of this design element is that a non-equivalent dependent variable helps to control for threats to internal validity; when hypothesized changes in the dependent variable or variables occur (i.e., changes in the intervention-aligned measures of help-seeking behaviours) but the same direction or magnitude of changes does not occur with the non-equivalent dependent variable (i.e., the non-intervention aligned measure of planning), it is reasonable to consider causal interpretations between the independent and dependent variables Shadish et al., 2002).

Composite scores of help-seeking behaviours before and after seeing the PCBH campaign materials were generated by adding the scored responses from the five questions regarding help-seeking behaviour at two time points. The same was done for planning. Paired t-tests were carried out to assess differences in retrospective help-seeking and planning behaviour prior to respondents viewing the PCBH materials, and post test differences in future help-seeking and planning intentions after viewing the PCBH materials. Results from paired t tests on the overall sample and NSW and Victoria separately are presented in the figure above.

As can be seen from Figure 29, help-seeking intentions remained unchanged after viewing the PCBH advertisements, whereas planning intentions have statistically significantly increased. One objective of the campaign was to facilitate an increase in help-seeking behaviour. These results indicate that this did not occur. Contrary to our expectations, the planning scores all increased significantly between pre and post paired t-tests. As we did not observe the expected increase in help-seeking behaviour, the results from the planning behaviour are inconsequential to the outcome of this evaluation as it was a design element introduced to attribute causality to any observed changes in intentions of help-seeking behaviours.

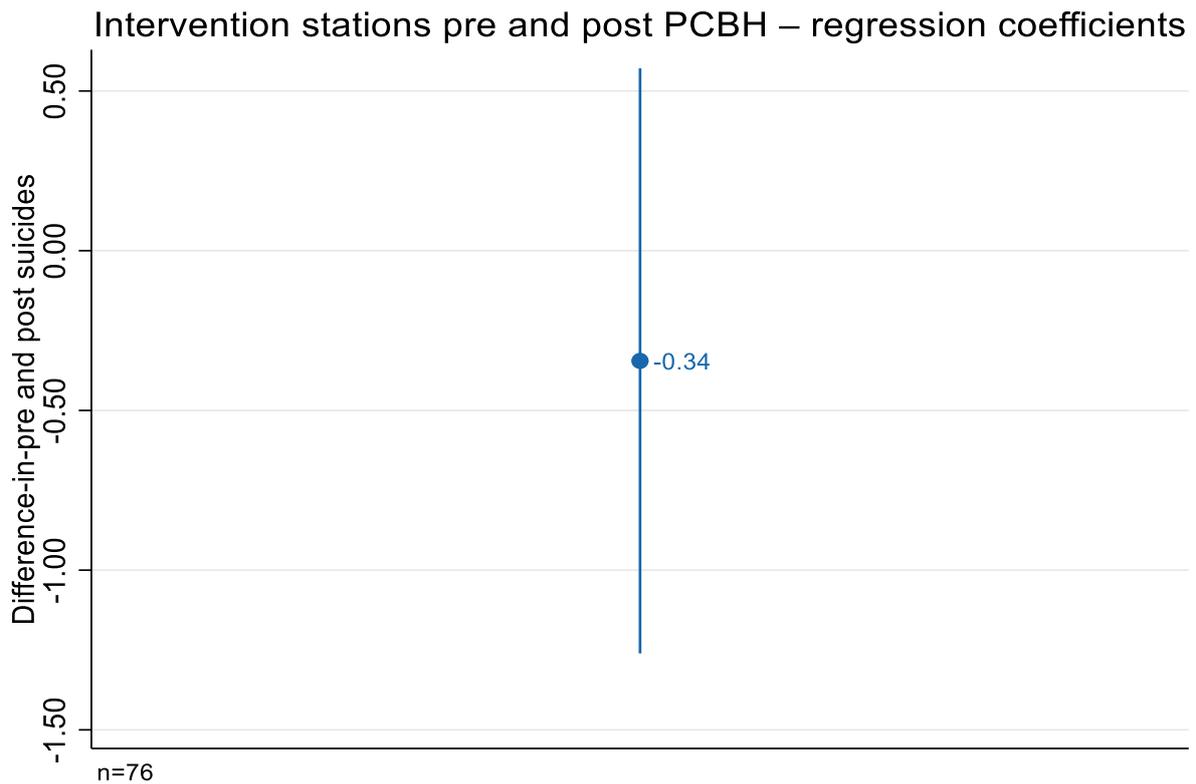
Suicide and suicide attempts analysis

Table 2 shows that the average number of pre and post suicides has decreased more at stations where the PCBH intervention targeted compared with the control stations. The control stations were chosen because historically there had been a stable number of very low suicides each year.

Table 2: Crude comparison of changes in average pre and post PCBH intervention suicides between intervention and control stations

Average suicides	Control Stations	PCBH stations
Pre intervention	.104	1.6
Post intervention	0.00	1.2
Difference	-.104	-.4

However, due to the small sample sizes and multiple months of zero suicides, a difference in difference analysis could not be undertaken. Figure 30 shows that a pre and post regression analysis confirmed the lower number of suicides at the intervention stations. However, the result is not statistically significant ($p=.455$), and no firm conclusions can be drawn regarding the effect of the PCBH campaign on reducing suicides.



p=.455

Figure 30: Pre and post regression showing suicides at intervention stations

Furthermore, as the NSW suicide data had not undergone the coronial process like the Victorian data, we performed a regression analysis on the Victorian data only – as a robustness check. This regression produced similar results indicating that blending the Transport for NSW suicide and self-harm data with the Victorian suicide register data did not have a negative effect on the outcome.

Finally, analysis was undertaken on suicide attempts using the Victorian and NSW rail data as well.

Table 3: Table 2: Crude comparison of changes in average pre and post PCBH intervention suicide attempts between intervention and control stations

Average suicide attempts	Control Stations	PCBH stations
Pre intervention	1.1	2.8
Post intervention	2.1	5.1
Difference	1	2.3

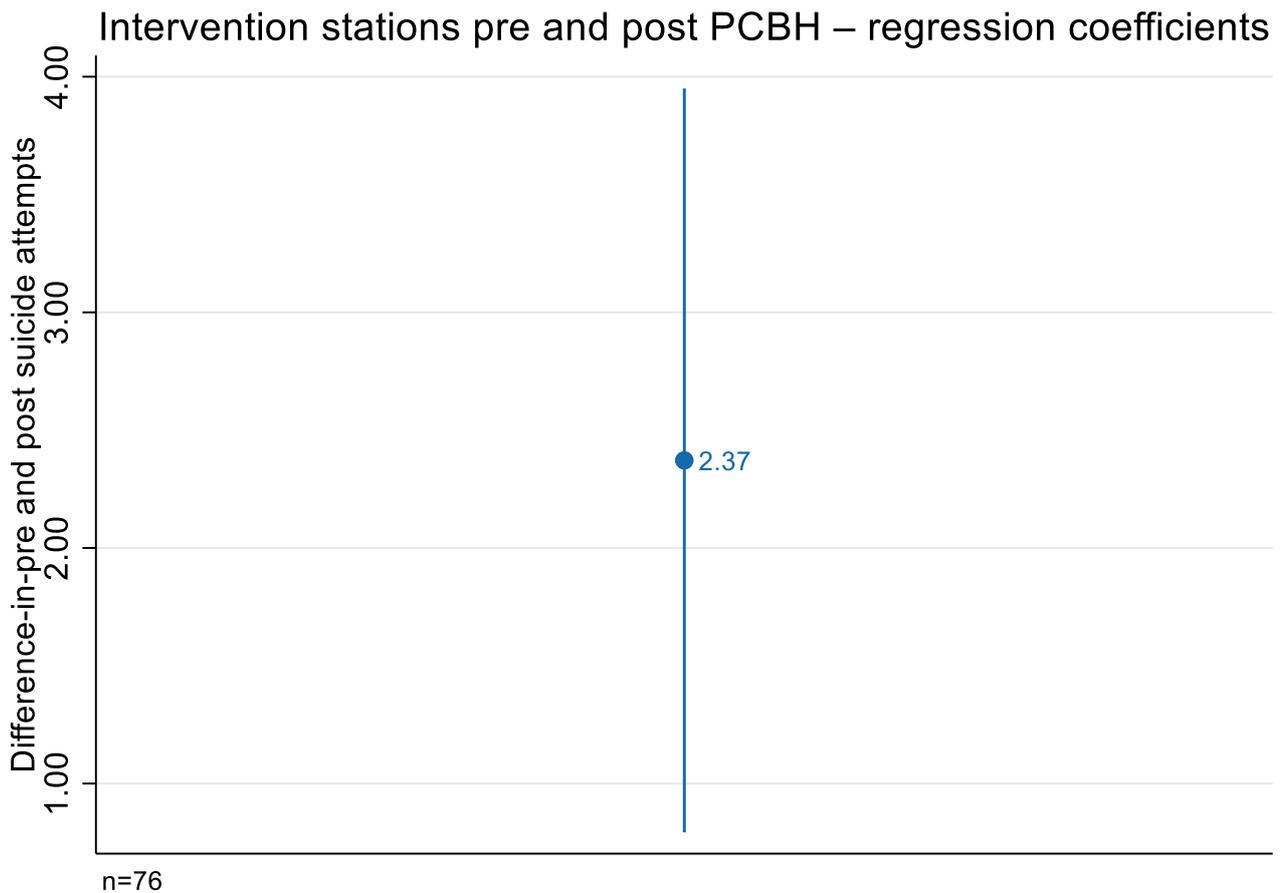


Figure 31: Pre and post regression showing suicide attempts at intervention stations

Figure 31 shows that a pre and post regression analysis shows that suicide attempts at the intervention stations has increased significantly ($p < .01$). However, these attempts are only 1.4 times greater and no longer statistically significant ($p = .167$) when compared with the attempts at control stations. Thus, no firm conclusions can be drawn regarding the effect of the PCBH campaign on suicide attempts.

Social media campaign

The findings from the social media campaign are:

- Overall, the TrackSafe campaign has delivered 42,011,765 impressions and 73,744 clicks.
- Victoria has outperformed NSW in terms of traffic and awareness by a factor of at least 3 on both measures
- There was no practical gender difference regarding audience engagement, with males slightly more engaged than females at 51%. Of these, 35% were aged 25-34
- Awareness and engagement were strongest at the commencement of the campaign in September 2021.

- Facebook has been the channel driving the most awareness and traffic, accounting for 36% of impressions and 45% of clicks

Concluding comments

This evaluation assessed the effectiveness of the PCBH campaign in Victoria and New South Wales promoting intentions and behaviour change on a range of outcomes. The evaluation investigated how successful PCBH has been regarding the following aims of the campaign:

- Encouraging people to engage in help seeking behaviour
- Building awareness of Lifeline and crisis services

The most encouraging finding from this evaluation is a positive change in help-seeking behaviour as calls made to Lifeline by NSW residents increased in the first six months after the campaign commenced between October 2020 and March 2021. The change is considered causal as these calls increased relative to a suitable control group that experienced similar trends in calls in the five years prior to the PCBH campaign including a six-month period that accounted for Covid-19. This is also supported by findings from the PCBH brand tracking social media campaign which found that awareness and engagement was strongest at commencement. Furthermore, the impact of the “Time for Change” anti-mental health stigma social media campaign in the UK also found similar results. There were several bursts, after which they measured awareness. The researchers found that “the rate of campaign awareness increased significantly at each post-phase, as well as burst after burst, adjusting for confounders” (Sampogna et al, page 119). There was also a positive correlation between calls to Lifeline in Victoria and the introduction of the PCBH campaign. However, this association was found in the absence of a suitable control group.

In terms of engagement with the PCBH campaign materials, the campaign has had a wide-ranging impact with two in every three respondents (65%) reported engaging with at least one of the messages. Males and respondents that remembered seeing the advertisements within the past month were also more likely to report engaging with at least one of the PCBH campaign messages. In terms of direct engagement with Lifeline, Survey respondents were more likely to report calling Lifeline for themselves and to consider the PCBH messaging if they saw the PCBH advertisements on a billboard at the train station or at the train station and digitally rather than if they reported just seeing the ads digitally. These same respondents were also more likely to report higher mean scores on the design and look of the materials than those who just saw the ads digitally. It is possible that the PCBH materials are more reinforcing when people are not looking directly at their phones. Perhaps, they are more mindful of the advertisements when their attention is not in competition with other stimuli. Survey respondents who rated their current mental health more positively were also more likely to contemplate calling lifeline themselves or think about a friend or family member who would benefit from contacting Lifeline after viewing the PCBH materials. In essence, those who reported more positive mental health ratings were also more likely to consider help from a trained professional, a partner or relative, and for someone else after viewing the PCBH materials.

However, not all help-seeking behaviours saw reported changes. There was no change in future help-seeking intentions reported by survey participants, yet there was an increase in goal setting intention and behaviour. This behaviour was only included to strengthen the design of the evaluation by acting as a quasi-control group for the help seeking intentions. It is possible that the survey respondents who self-selected into the study were different to the general population in ways that may have been related to help seeking behaviour. The respondents were recruited for the survey from a database of a third-party survey provider and were incentivised to do the survey. Nonetheless, this is a difficult population to survey and future research may benefit from a more targeted survey strategy that might yield different results.

Limitations

It is well known that survey research can be subject to social desirability bias which can often lead to respondents providing answers they believe to be more socially acceptable. Similarly, self-report survey data can also suffer from other forms of bias that could potentially affect the truthfulness of the data provided. However, our survey adopted a method of prompted recall (which presented participants with actual images of campaign materials) to mitigate the risk of recall bias. We especially chose materials that were as explicitly as different as possible to overcome this.

The sampling of survey respondents may have also been affected because of Covid-19. There is potential for the mix of commuters to have changed due to fewer people travelling on the network and the difference between the characteristics of jobs and the demographics of the persons that perform jobs that could be performed from home versus the ones that cannot.

Although a causal method was chosen to analyse Lifeline call data, and the assumptions underpinning that approach were met, it is always prudent to adopt a conservative approach to interpreting the findings. It is probably not possible to account for the full suite of external factors that could influence call volumes to Lifeline.

Finally, this study was not able to make causal statements about suicidal ideation or deaths from suicide. Apart from the limitations with the data available, it is probably unrealistic to expect a campaign like PCBH to impact directly on this. It is highly likely that a more targeted approach and a longer maturation period between the intervention and evaluation is necessary to assess these impacts more confidently.

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