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Date:

2025-12-01

Citation:

Nicholas, A., Requena, S. S., Rice, S., Spittal, M. J., MacKinnon, A., Seidler, Z., Ftanou, M., Fletcher, J., Le, L., Mihalopoulos, C. & Pirkis, J. (2025). Boys Do Cry: a randomised controlled trial testing the effects of a music video promoting help-seeking for mental health difficulties in Australian men. *BMC Public Health*, 25 (1), <https://doi.org/10.1186/s12889-024-21172-7>.

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Boys Do Cry: a randomised controlled trial testing the effects of a music video promoting help-seeking for mental health difficulties in Australian men

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Abstract

Background In Australia and internationally, it is men who predominately die by suicide. Men are less likely than women to seek help for their mental health difficulties and this may contribute to their higher suicide rates. We created a 4-minute music video encouraging Australian men to seek help for mental health difficulties (*Boys Do Cry*). We aimed to assess in a randomised controlled trial (RCT) whether the *Boys Do Cry* video increased men's intentions to seek help for mental health difficulties from baseline (T1) to post-intervention (1 week=T2).

Methods We conducted an online single-blind, two-arm RCT comparing the effects of *Boys Do Cry* against a control video. Analyses were undertaken on an intent-to-treat basis using linear mixed effects models with variables for trial arm, occasion of measurement and their interaction. Intervention effectiveness was assessed by comparing the mean difference between arms in change of the total score on the General Help-Seeking Questionnaire (GHSQ) from T1 to T2.

Results 476 participants were randomised (intervention = 243; control = 233). At T1, GHSQ means were similar (intervention = 45.28; control = 45.70). After viewing the videos, GHSQ means increased in both arms (intervention = 47.33; control = 46.59), with no evidence of a difference in scores at T2 (modelled mean difference = 0.62, 95% CI -1.11 to 2.35, $p = 0.485$). Similar results were observed for all secondary outcomes. No adverse events were observed.

Conclusions *Boys Do Cry* demonstrated some evidence of a positive effect on help-seeking intentions among Australian men; however, so too did the control video, and no significant difference was observed.

Trial registration ANZCTR No. 2,621,001,008,819. Registered 30 July 2021.

Keywords Help-seeking, Male, Media, Randomised controlled trial, Suicide prevention, Video.

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Background

In Australia, three-quarters of those who die by suicide are men [1], and this difference between males and females is consistent with global trends [2]. Factors contributing to higher suicide rates in men are many, complex and interrelated, but include the use of suicide methods more likely to result in death than those used by women [3, 4]; greater use of drugs and alcohol [5, 6], which is related to an increased suicide risk; [7, 8] and lower likelihood of seeking help when depressed [9, 10]. This lower propensity to seek help from both formal (e.g., mental health professional) and informal sources (e.g., family and friends) may be related to adherence to traditional masculine norms such as self-reliance [11, 12], which place pressure on men to deal with their problems alone. Withdrawal from social relationships and increased isolation are characteristic symptoms of depression among men [5]. Social isolation may also prevent men from seeking support from informal sources, and can maintain feelings of isolation and burdensomeness, which frequently accompany suicidality [13–15].

Increasing the number of men who seek help for mental health difficulties from either formal or informal sources may therefore be one mechanism by which the suicide rate among men could be lowered. Media campaigns are one type of intervention frequently used to encourage help-seeking for mental health difficulties among various groups [16, 17]. Such campaigns can be effective in increasing help-seeking intentions or help-seeking in the target audience [18–20].

A randomised controlled trial (RCT) testing the effects of a three-hour documentary (*Man Up*) aimed at improving help-seeking for mental health difficulties among Australian men showed it increased participants' intentions to seek help for mental health difficulties, as well as the likelihood of encouraging friends to seek help [21]. However, costs of production of such a documentary are high and asking men to watch a documentary of such length may limit its reach. By contrast, there is strong evidence that a relatively short video can still have a strong impact on help-seeking. In 2017, well-known American hip hop artist Logic released a song titled '1-800-273-8255'. This is the US Lifeline number and Logic's lyrics encourage people to reach out for help in times of suicidal crisis. A 2021 study by Niederkrotenthaler et al. [22] found that after a period of strong public attention on the song, there was a substantial increase in calls to Lifeline, as well as a reduction in suicides.

Methods

In this study, we sought to test, using a RCT, the effects of a music video developed for this study on the help-seeking intentions of Australian men [23]. In this video,

we promoted a similar core message to that promoted in *Man Up*: to express their emotions and reach out to others when they are struggling. The aim of this study was to test whether exposure to a four-minute music video, 'Boys Do Cry' would increase the help-seeking intentions of Australian men compared with a control video.

A detailed method is outlined in our trial protocol paper (ANZCTR No. 2621001008819) [23], but a brief description is provided here. There were no changes to the trial protocol or outcomes after recruitment had commenced. We partnered with a film production company, Heiress Films and a creative agency, The Hallway, to make a short video targeting men's help seeking and with high quality production. These companies also provided some assistance with recruitment for the RCT. We also partnered with an Australian not-for-profit men's suicide prevention organisation, Gotcha4Life, who also assisted in recruitment for the RCT.

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

Participants

To be eligible to take part in the trial, participants had to identify as a man, be aged ≥ 18 years, living in Australia, and able to speak and read English. Recruitment occurred between August and October 2021. Participants were recruited online from the general population via a flyer distributed using various methods, including having our project partners and research team email their networks and advertise the study on their social media accounts (e.g., Twitter, Instagram, Facebook); student email lists for the University of Melbourne targeting male-dominated disciplines (e.g., engineering and business), and placement on the broader student portal; and snowballing via existing participants. Potential participants registered their interest on a project website and were then emailed a plain language statement outlining the study and requirements of participation and a read-only copy of the consent form. Those interested in participating nominated a preferred time to attend an online orientation and baseline data collection session and were sent the login details for that session.

Procedure

Consent

Each participant attended the online orientation session (using Zoom software) with up to 10 others. A researcher and study psychologist outlined details of the trial protocol and answered any questions. Participants signed an online consent form and completed the

Time 1 (T1=baseline) questionnaire online. Participants were randomised once they had completed the T1 questionnaire.

Randomisation and masking

This was a double-blind RCT. Trial arm allocation was automated using an online allocation (1:1 allocation) and data collection system. All researchers and participants were blinded to participants' allocation; as both arms watched a video, participants were not blinded to the video they were exposed to but they were unaware of the possibility of allocation to an intervention or control group. Blinding was maintained for researchers until collection of T1 and Time 2 (T2=one-week post-baseline) data was complete.

Data collection

Data were collected through the online system mentioned above, which was administered by a data management company (Logicly). Following completion of the T1 questionnaire and randomisation, participants accessed the intervention or control video online using a link sent from the online allocation and data collection system via email. Participants could watch the video multiple times over one week. They received the video link again (via email) on days three and seven. Participants received the T2 questionnaire one week after completing the T1 questionnaire and a further follow-up questionnaire (Time 3; T3) four weeks after completing the T2 questionnaire. Participants had one week to complete each questionnaire and two reminders for completion were sent. Participants received an online Visa voucher for completion of each questionnaire (\$30AUD each for the T1 and T2 questionnaires and \$40AUD for T3 questionnaire). Consistent with intention-to-treat analysis, all randomised participants were included in analyses, regardless of whether they completed questionnaires at each timepoint.

Intervention and control conditions

The intervention was a music video developed for this study of approximately four minutes' duration (<https://boysdocry.com.au/>). The video takes a well-known song (The Cure's *Boys Don't Cry*) and adapts (with permission of the artist and record company) the lyrics with the intention of encouraging men to seek support from others when they are experiencing mental health difficulties. The lyrics (found here: <https://boysdocry.com.au/getcracking#lyrics>) focus on how men are typically discouraged from discussing their difficulties but urges them to express their feelings and seek support when they are not coping. The video ends with the call to action printed on the screen *'When the going gets tough. Get Talking'* and a

link to a website, which houses information for gaining various types of mental health support. The website was not live during the trial in order to isolate the effects of the video alone, without any further support information.

The control video was a four-minute excerpt from an unrelated documentary previously aired on Australian television called, *'Redesign My Brain'*. This video was chosen because it focuses on brain health, though not mental health help-seeking and because, like the intervention video, it was an Australian production featuring only men. This choice of content allowed the questionnaires to remain relevant to all participants. The video shows the central figure being taught to play table tennis by two champions in order to increase his cognitive processing speed.

Measures

Table 1 details the questionnaires completed at each timepoint and their use as primary or secondary outcomes. Standardised measures used were the DSI-SS [24], which was used to screen for suicide risk in order to trigger psychologist follow-up (see Risk Management); the General Help-Seeking Questionnaire – Self (GHSQ-Self); [25] the General Help-Seeking Questionnaire – Other male (GHSQ-Other); [25] the Conformity to Masculine Norms Inventory-30 – Self-Reliance subscale (CMNI-30-SR); [26] the Male Depression Risk Scale-7 (MDRS-7); [27] and the Health Service Use Questionnaire (HSUQ), which is a modified version of the Resource Use Questionnaire [28]. In addition, we asked purpose-designed questions regarding current social support, knowledge of the video, opinions and about the video and its effects. We chose help-seeking intentions rather than help-seeking behaviour as the primary outcome as there was a limited opportunity for men to need and seek help by the primary outcome timepoint (one-week post-baseline). We also asked the participants to complete an 'attention' question: a knowledge question related to the content of their allocated video to assess whether they attended well to the video content.

Risk management

We screened for suicide risk using the Depression Symptom Inventory - Suicidality Subscale (DSI-SS) [24], which was part of the T1 questionnaire. A psychologist telephoned any participant who scored 2 or above on the DSI-SS. They discussed with the participant their current suicide risk and ongoing support needs and provided referrals for further mental health support as needed. All participants had access to the study psychologist up to four weeks following completion of the trial. Together the psychologist and participant determined whether the

Table 1 Details of measures used at each data collection point

Construct	Measure	Example items	Scoring	Data collection point		
				T1	T2	T3
<i>Screening Measure</i>						
Suicide risk	Depression Symptom Inventory – Suicidality Subscale [24]	Sometimes I have thoughts of killing myself (score = 1) In some situations, I have impulses to kill myself (score = 1)	4 items. Each response (examples left) has an allocated score. Cut-off of 2 or above used to trigger follow-up from study psychologist. Total score also used for analysis.	X		
<i>Primary Outcome Measure</i>						
Help-seeking intentions ^a	General Help-Seeking Questionnaire – Self [25]	If you were having a personal or emotional problem, how likely is it that you would seek help from the following people or services? [Intimate partner, friend, parent, other family members, mental health professional, phone helpline, doctor, minister or religious leader, I would not seek help from anyone, and I would seek help from another not listed above.] We added three further responses: online health chat rooms, online searches for health information, and social media	13 items. 1 (extremely unlikely) to 7 (extremely likely). Total score used in analysis (range = 13–91).	X	X	X
<i>Secondary Outcome Measures</i>						
Intentions to encourage other males to seek help	General Help-Seeking Questionnaire – Other [25]	If a male friend or family member of yours was having a personal or emotional problem, how likely is it that you would recommend to that person to seek help from the following people? (items as above)	13 items. 1 (extremely unlikely) to 7 (extremely likely). Total score used in analysis (range = 13–91).	X	X	X
Self-reliance	Conformity to Masculine Norms Inventory 30 – Self-reliance subscale [26]	It bothers me when I have to ask for help; I never ask for help, and I am not ashamed to ask for help.	3 items. 1 (strongly disagree) to 3 (strongly agree). Total score used in analysis (range = 1–9).	X	X	X
Male depression symptoms	Male Depression Risk Scale-7 [29]	In the last month, how much do these statements apply to you? I bottled up my negative feelings I needed alcohol to help me unwind	7 items. 0 (none of the time) to 3 (all of the time). Total score used in analysis. (range = 0–21)	X		X
Health service use	Health Service Use Questionnaire	Assessed use of health services for mental health difficulties over the past four weeks including primary health services, inpatient admissions internet-based services, and phone counselling. Use of psychotropic medications was also assessed, as was the effect of mental health difficulties on functioning at work/in education	8 primary items with positive responses triggering questions requesting further detail. Response options vary based on question. Used individually in analysis.	X		X

Table 1 (continued)

Construct	Measure	Example items	Scoring	Data collection point		
				T1	T2	T3
<i>Other Measures</i>						
Socio-demographics	Purpose-designed	Age, postcode, country of birth, language, marital status, current student, highest education, and employment	9 items. Used individually in analysis	X		
Social support question	Purpose-designed	About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)?	1 item. Total used in analysis	X	X	X
Attention	Purpose-designed	Intervention group: During the song, there is a man (Dallas Woods) who raps some lyrics. How does the rap end?	1 item (one intervention, one control). Multiple choice. Correct/Incorrect used in analysis.			
Feedback on video	Purpose-designed	Did you enjoy watching the video? What parts did you like most in the video? What do you think was the main take home message of the video?	5 items. Combination of rating scale (e.g., 1 = no impact to 10 = great impact) and open-ended responses. Used individually in analysis.		X	
Effects of viewing the video	Purpose-designed	Do you think the video triggered any change for the better in you? This change might include how you think about your own actions or the actions of others or how you behave towards others.	10 items. Combination of closed-ended (e.g., "Yes, quite a bit" to "not that I can think of") and open-ended responses. Used individually in analysis.			X

T1: The T1 questionnaire was completed in the online information session; T2: The T2 questionnaire became available seven days after completion of the T1 questionnaire and the survey expired after one week; T3: The T3 questionnaire was made available four weeks after the T2 questionnaire is completed or expires. The survey link expired after one week

^aThe GHSQ-Self measured at T3 was also used as a secondary outcome measure

participant should continue in the trial, and participants were randomised if they decided to continue.

Sample size

Our power calculation suggested a sample size of 446 based on detection of a 0.25 standardised difference in mean on the GHSQ-Self score between the intervention and control arms (90% power, 2-sided 5% significance level) and 20% loss to follow-up. We assumed a correlation of 0.67 between T1 and T2 scores.

Analysis

All analyses were conducted in Stata v17.

Primary outcomes

We analysed all continuous outcomes on an intention-to-treat basis. That is, we included all randomised participants, regardless of their receipt of the intervention, completion of questionnaires after baseline, or withdrawal from the study. We used a linear mixed-model model including variables for trial arm (intervention, control), measurement occasion (T1, T2, T3) and their interaction. An unstructured residual variance-covariance matrix was used to accommodate within-participant dependency. To test the primary hypothesis of differential change, we used this model to undertake a planned comparison of the mean difference between arms in change of the primary outcome variable from T1 to T2. For all outcomes, we transformed mean differences to standardised mean differences (SMD). Tests of significance used degrees of freedom adjusted using the Kenward-Roger method based on the observed information matrix. Analyses of secondary outcome variables followed the same approach as outlined for the primary outcome. Secondary outcomes also included change in the primary and secondary outcome variables from T1 to T3, done as a planned comparison using the models described above. No transformations to ensure distributional assumptions of the model of the outcome variables were planned or undertaken.

We conducted the primary outcome analysis (as above) upon collection of all T2 data. We did this to assess for any net harm associated with the intervention. Assessment of harm allowed us to inform Heiress Films and The Hallway, responsible for publicly releasing the video online and promoting viewing, whether they could release the film in the following month. Researchers were unblinded upon completion of this analysis. Absence of net harm was indicated by the lower confidence interval of the mean GHSQ-Self score in the intervention condition at T2 being no lower than that in the control condition, adjusting for any differences observed at T1.

Subsidiary analyses were conducted as above but with the following variables as covariates: age group, English spoken at home vs. other language spoken at home, highest qualification, marital status, number of times video they watched they video, and whether the 'attention' question was answered correctly.

Results

A total of 478 participants completed T1 questionnaires. Thirty-nine men (8.2%) scored at, or above, the cut-off of ≥ 2 on the DSI-SS and were followed-up by a psychologist. Two of these participants decided not to continue in the trial and were not randomised to the intervention or control arm. Therefore, a total of 476 men were randomised and included in the outcomes analysis. Figure 1 shows the flow of participants through the study.

Sociodemographic characteristics

The mean age of participants was 42.6 years (SE = 0.64, range = 18 to 87 years). Table 2 summarises all other sociodemographic characteristics of the sample by intervention arm.

The percentage of participants who were born overseas is similar to that of the Australian population (29.1% in 2021) [30], but Aboriginal and Torres Strait Islander people, who make up 3.2% of Australia's population, were not well represented [31].

Table 3 shows how many times the participants watched their allocated video, and whether they correctly answered the 'attention' question for their allocated video. Although given the opportunity to watch their allocated video multiple times, approximately half of participants watched only once (Intervention = 112 (46.1%); control = 115 (49.4%)). All participants who completed T2 watched the video at least once. Those in the intervention arm answered the 'attention' question incorrectly more frequently than those in the control arm (33.3% v 1.8% incorrect).

Analyses of primary and secondary outcomes

Table 4 shows the mean scores on the primary outcome, GHSQ-self scores at T2, and each of the secondary outcomes for the intervention and control groups at T1, T2 (where applicable) and T3. Table 4 also shows the modelled mean difference and the standardised mean difference, both based on the linear mixed effects models.

While the GHSQ-Self score increased substantially from T1 to T2 for the intervention group (T1 mean = 45.28, SD = 10.11; T2 mean = 47.33, SD = 9.60), there was also an increase in the control group (T1 mean = 45.70, SD = 9.47; T2 mean = 46.59, SD = 9.48). Although this was smaller, it meant that, for the primary outcome, there was no evidence of a difference

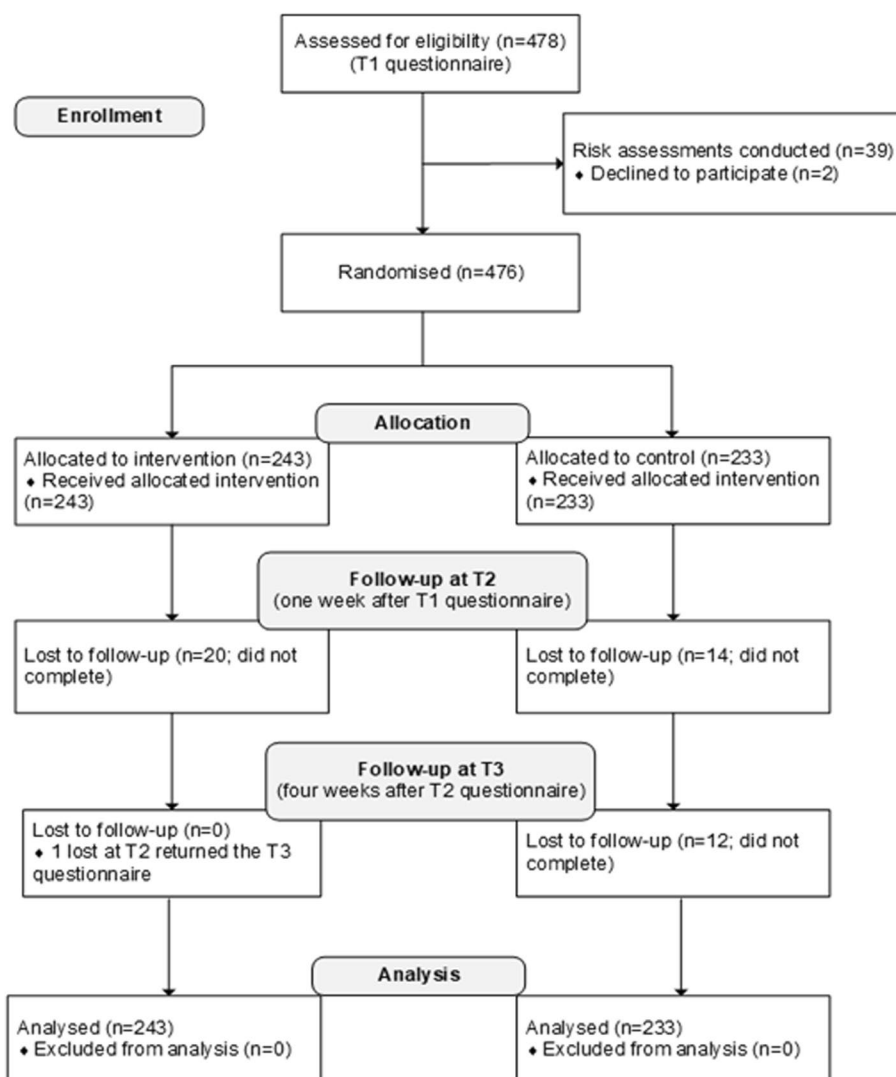


Fig. 1 Participant flowchart *As we used an intention to treat protocol, participants who did not complete the T2 questionnaire were still able to complete the T3 questionnaire and therefore we had a higher number of participants at T3 than at T2.

between the arms (modelled mean difference = 0.62, 95% CI -1.11 to 2.35, $p = 0.485$). Scores on all of the secondary outcome measures similarly moved in the desired direction for the intervention group, with little or no change for the control group. However, the limited magnitude of these changes resulted in no evidence of mean differences between intervention and control groups.

Subsidiary analyses

Subsidiary analyses, in which we additionally controlled for the effects of age group, language spoken at home other than English, highest qualification, marital status, the number of time participants watched the

video, and whether they answered the ‘attention’ question correctly, did not alter the findings observed above (Supplementary Table 1).

Discussion

Our RCT showed that although there was a mean increase in help-seeking intentions by those who viewed the *Boys Do Cry* video, there was also a mean increase among those who viewed the control video. What this meant was that there was no significant difference in the primary outcome between the intervention and control groups. There was also no significant difference on any of the secondary outcomes.

The observation that both groups improved to some degree in terms of their help-seeking intentions may be

Table 2 Descriptive statistics summarising sociodemographic and video watching characteristics

	Intervention (n = 243) No (%) ^a	Control (n = 233) No (%) ^a
Country of birth		
Australia	170 (70.0)	168 (72.1)
Other	73 (30.0)	65 (27.9)
Language spoken at home		
English	218 (89.7)	218 (93.6)
Other	25 (10.3)	15 (6.4)
Aboriginal or Torres Strait Islander		
Neither	239 (98.35)	230 (98.7)
Aboriginal	2 (0.82)	1 (0.4)
Torres Strait Islander	0 (0.0)	0 (0.0)
Both Aboriginal and Torres Strait Islander	0 (0.0)	1 (0.4)
Prefer not to answer	2 (0.82)	1 (0.4)
Marital Status		
Never married	84 (34.6)	69 (29.6)
Widowed	1 (0.4)	3 (0.3)
Divorced	18 (7.4)	21 (9.0)
Separated	7 (2.9)	7 (3.0)
Married/de facto	133 (54.7)	133 (57.1)
Studying		
No	169 (69.6)	180 (77.25)
Full time student	42 (17.3)	31 (13.3)
Part time student	32 (13.2)	22 (9.4)
Education		
Year 11 or lower	4 (1.7)	5 (2.2)
Year 12	21 (8.6)	28 (1.0)
Certificate/Trade Certificate/Apprenticeship	36 (14.8)	24 (10.3)
Associate or undergraduate diploma	21 (8.6)	24 (10.3)
Bachelor's degree or higher	160 (65.8)	152 (62.5)
Other	1 (0.4)	0 (0.0)
Employment		
Employed	197 (81.1)	176 (75.5)
Unemployed and looking for work	13 (5.4)	22 (9.4)
Neither working nor looking for work	33 (13.6)	35 (15.02)

^a Within group percentages (column percentages)

Table 3 Number of times participants watched the video and responses to the attention question

Number of times watched video	No. (%)	No. (%)
0	19 (7.8)	6 (2.6)
1	112 (46.1)	115 (49.4)
2	71 (29.2)	79 (33.9)
3	25 (10.3)	20 (8.6)
4 or more	16 (6.6)	13 (5.6)
Response to attention question	<i>N</i> = 223 ^a	<i>N</i> = 219 ^a
Correct	148 (66.7)	215 (98.2)
Incorrect	74 (33.3)	4 (1.8)

^a *N* differs as question was asked at T2 when there was loss to follow-up

attributable in some part to participation in the study acting as its own intervention. To take part, all participants attended an online session with a researcher and a study psychologist. The psychologist introduced themselves, gave a brief outline of their professional background, and explained their role in the study. All participants were provided with a phone number for the psychologist. Five of the seven psychologists in this role were men, and five specialised in working almost exclusively with men, with several psychologists having a history of providing services in the military. These psychologists also had a personable, relaxed and engaging style in interacting with participants. It is plausible

Table 4 Results of analysis of primary and secondary outcomes

	Intervention		Control		Modelled Mean Difference (95% CI)	Modelled Std. Mean Difference (95% CI)	P value for Modelled Mean Difference
	n	Observed Mean (SD)	n	Observed Mean (SD)			
Primary outcome							
GHSQ – self							
T1	243	45.28 (10.11)	233	45.70 (9.47)	-0.42 (-2.18, 1.35)	-0.04 (-0.23, 0.14)	0.644
T2	223	47.33 (9.60)	219	46.59 (9.48)	0.62 (-1.11, 2.35)	0.06 (-0.12, 0.25)	0.485
T3	224	47.66 (9.60)	207	46.29 (9.04)	1.32 (-0.39, 3.04)	0.14 (-0.04, 0.33)	0.130
Secondary outcomes							
GHSQ – other male							
T1	243	51.93 (9.23)	233	52.61 (9.65)	-0.68 (-2.38, 1.02)	-0.07 (-0.25, 0.11)	0.433
T2	223	53.57 (10.56)	219	51.92 (8.97)	1.45 (-0.33, 3.24)	0.15 (-0.03, 0.33)	0.111
T3	224	53.20 (9.41)	206	51.32 (9.54)	1.57 (-0.18, 3.32)	0.17 (-0.02, 0.35)	0.079
CMNI-SR							
T1	243	6.34 (3.31)	233	5.94 (3.29)	0.41 (-0.19, 1.00)	0.12 (-0.06, 0.30)	0.181
T2	223	6.19 (3.00)	219	5.95 (3.08)	0.21 (-0.35, 0.77)	0.07 (-0.11, 0.25)	0.460
T3	224	5.71 (2.98)	206	6.02 (3.19)	-0.32 (-0.89, 0.25)	-0.10 (-0.29, 0.08)	0.270
MDRS-7							
T1	243	11.26 (2.36)	233	10.98 (2.39)	0.28 (-0.15, 0.70)	0.12 (-0.06, 0.30)	0.205
T2	-	-	-	-	-	-	-
T3	224	10.61 (2.29)	206	10.83 (2.37)	-0.21 (-0.64, 0.22)	-0.09 (-0.28, 0.09)	0.335

Mixed-model repeated measures (MMRM) analyses including factors of intervention arm, occasion of measurement (T1, T2) and their interaction

that meeting one of the psychologists may have encouraged help-seeking intentions.

The findings of our RCT contrast those found for the *Man Up* documentary, which had a similar core message [21], but at three hours’ duration, *Man Up* is a substantially more intensive intervention. Suicide prevention media campaigns frequently include a short advertisement or ‘public service announcement’ (PSA) in the form of a video [16]. An Australian study of the effect of a single exposure to one of three 30-second suicide prevention PSAs aimed at young people found it to also have no effect on help-seeking nor other outcomes [32]. The authors speculated that the short duration and single exposure, resulting in an overall ‘low dose’ intervention, might have been one contributor to the PSAs’ limited effects [32]. However, this PSA did not test the effects of male-focused suicide prevention messages on men.

In our RCT, we attempted to test whether increased exposure to a relatively short intervention might positively affect outcomes by allowing participants to watch the video multiple times. We found the number of viewings to be unrelated to help-seeking. However, most participants chose only to watch the video once or twice, limiting our ability to test this effect. Reviews of the effects of mental health and suicide prevention media campaigns have proposed that repeat exposure is

fundamental to their success [33, 34]. Limited exposure to the video in our RCT may have limited any observed positive effects, and it is therefore possible that increased exposure could lead to a greater intervention effect [33–35].

Other tests of suicide prevention videos of similar length have demonstrated positive effects on help-seeking [36, 37]. Kirchner et al. [37] in their *It Gets Better* intervention tested the effects of two videos of seven minutes’ (male protagonist) and three minutes’ (female protagonist) duration. These videos were aimed at young LGBTQI+ people from Austria and showed the protagonists’ struggles with suicidal ideation related to coming out. This study showed an overall positive effect on help-seeking intentions. Braun et al. [36] showed a similar positive effect on help-seeking in a study of a 5-minute video produced by and for Austrian adolescents showing a boy who had overcome an episode of suicidal thinking. While these videos are of similar length to the *Boys Do Cry* video, they took a narrative style, showing a protagonist telling a story of hope and recovery from suicidal thoughts. This type of narrative, which tells a story of struggle with suicidal thoughts and recovery, has been shown to have positive effects on suicidal thinking (termed *the Papageno effect*), but there is currently insufficient evidence regarding its effect on help-seeking

attitudes and intentions [38]. The investigators involved in both studies speculated that the effectiveness of the tested videos may have been attributed in part to their personal narrative style, which included protagonists similar to the target audience talking about how they overcame their struggles with suicidal thinking [36, 37]. In Logic's song 1-800-273-8255 and the associated music video, he similarly presents a narrative of hope and recovery from a suicidal crisis through song. This approach, though also backed by Logic's celebrity power and that of other famous people who collaborated with him on the song and video (e.g., singers Alessia Cara and Khalid; actor Don Cheadle), showed that such a format can significantly improve help-seeking (and reduce suicides). It is therefore possible that delivering our central message in a narrative style may have had more of an effect.

The *Boys Do Cry* video is the centrepiece of a broader media campaign that was rolled out once the RCT was complete. This broad campaign included promotion via traditional media comprising interviews with *Boys Do Cry* spokesmen (all men) on television and in print media, and a social media campaign that promoted the video and the campaign website via Instagram, Facebook, Twitter and TikTok. The website (www.boysdocry.com.au) housed the video on its homepage and contained additional mental health information and resources. These resources include six short interviews with men from the video, information on who to talk to about mental health difficulties (e.g., men's mental health telehealth service, crisis lines, a GP) and how to talk to someone experiencing mental health difficulties or who might be thinking about suicide. The website also houses information on ways for the public to be involved in the *Boys Do Cry* campaign, and information on maintaining good mental health and learning more about mental health. The purpose of our RCT was to test the isolated effects of exposure to the video. However, reviews of the effects of health and mental health media campaigns consistently conclude that, in addition to repeated exposure, multi-level campaigns comprising multiple components and community engagement have the most positive effects on the target behaviour [33–35].

Evaluations of such multi-level suicide prevention campaigns have been conducted and some have shown positive effects (see Pirkis et al. [17] for a review). However, many real-world evaluations lack methodological rigour that limit their ability to attribute causation of effects to the campaign under study and to understand the effects of various campaign components [17]. Wasserman et al. [39] have demonstrated use of a 'hybrid' approach to testing a multi-level suicide prevention educational intervention in which they conducted a cluster RCT in schools;

however, such an approach is yet to be used with suicide prevention media interventions.

In Wakefield et al.'s [35] review of the effects of mass media campaigns on health behaviours, one of the greatest 'hindrances' to the success of campaigns was identified as social norms. Social norms that hinder men's willingness and ability to express emotions, talk about their mental health difficulties, and seek formal support are deeply ingrained in the traditional masculine norms of Australia and culturally similar countries [11, 12]. Previous studies have shown that the masculine norm of self-reliance is linked to suicidality in men [11, 12], and may limit help-seeking. It may well be unrealistic to expect that viewing the *Boys Do Cry* video once or even multiple times within the trial would shift adherence to a norm ingrained over a lifetime and reinforced in cultural messaging. Indeed, the change in the traditional masculine norm of self-reliance we observed in our study did not differ significantly between our intervention and control groups. A successful media campaign that aims to encourage men to seek help for mental health difficulties is likely to require a longitudinal multi-pronged approach to challenging this norm. It is noteworthy that the Australian three-hour documentary *Man Up*, which had a similar focus and aims as *Boys Do Cry*, was successful in shifting scores on traditional masculine norms including self-reliance [21]. Therefore, media approaches in some forms can be used to shift such social norms. Further research on the effects of suicide prevention media interventions need to examine the necessary active ingredients, including the level of exposure, needed to have an effect.

Limitations

We attempted to recruit a range of men via numerous recruitment channels. However, it is possible our sample had a greater interest in, and therefore knowledge of, mental health than the broader Australian population. Therefore, generalising our findings to the Australian population of men should be done with caution. Help-seeking intentions are a significant but imperfect predictor of help-seeking behaviour. We attempted to use help-seeking behaviours, such as access to a mental health professional (at T3), as well as help-seeking intentions (at T2 and T3) to assess of the effects of the intervention video on help-seeking. The time limitations of the trial, however, meant that the follow-up period in which actual help-seeking could occur was limited to just four weeks (T3 follow-up), which may not provide adequate time for a need to arise and for help-seeking to occur.

Conclusion

Men who viewed the *Boys Do Cry* four-minute music video demonstrated an increase in help-seeking intentions, but this increase was not significantly greater than that observed among those men who watched the control video. It is possible that greater exposure to the intervention is needed to have a significant effect. Further research assessing effects of media interventions for suicide prevention need to examine the active ingredients for effective interventions, such as the messaging and the method of delivery, as well as the level of exposure that is needed to have an effect.

Abbreviations

CMNI-30-SR	Conformity to Masculine Norms Inventory-30 – Self-Reliance subscale
DSI-SS	Depression Symptom Inventory - Suicidality Subscale
GHSQ-Other	General Help-Seeking Questionnaire – Other male
GHSQ-Self	General Help-Seeking Questionnaire – Self
HSUQ	Health Service Use Questionnaire
MDRS-7	Male Depression Risk Scale-7
RCT	Randomised Controlled Trial

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12889-024-21172-7>.

Supplementary Material 1

Acknowledgements

We are grateful to the following organisations, who contributed in integral way to *Boys Do Cry*: Heiress Films, The Hallway, Gotcha4Life, Logicy, Life in Mind, Mantle Health and Roses in the Ocean. We would also like to thank all of the men who volunteered to be part of the *Boys Do Cry* video, and all of our participants.

Authors' contributions

AN was the trial manager, conducted some statistical analysis and wrote the manuscript. SSR conducted some statistical analysis, assisted in data collection and contributed to writing the manuscript. MS provided statistical advice, conducted some statistical analysis and contributed to writing the manuscript. AM assisted in design of the trial, planned the statistical analysis and conducted some statistical analysis. JP and SR were lead investigators of the trial and contributed to trial and intervention design. MF and JF assisted in data collection. ZS contributed to design of the intervention and trial. LL and CM assisted in the trial design, designed and conducted the economic evaluation. All authors read and provided critical feedback on the final manuscript and approved it for publication.

Funding

This work was supported by a Medical Research Future Fund grant (MRFF1199972), and Suicide Prevention Australia (AN, SSR).

Data availability

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Human Research Ethics Committee of the University of Melbourne (2021-14638-18028-3). Informed consent was obtained from all individual participants included in the study.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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Received: 20 February 2024 Accepted: 20 December 2024

Published: 14 January 2025

References

1. Australian Bureau of Statistics. Causes of death, Australia Canberra, Australia: Australian Bureau of Statistics; 2021 [Available from: <https://www.abs.gov.au/AUSSTATS/abs@.nsf/0/47E19CA15036B04BCA2577570014668B?Opendocument>]
2. World Health Organization. Suicide Worldwide in 2019: Global Health estimates. Geneva, Switzerland: World Health Organization; 2021.
3. Värnik A, Kõlves K, van der Feltz-Cornelis CM, Marusic A, Oskarsson H, Palmer A, et al. Suicide methods in Europe: a gender-specific analysis of countries participating in the European Alliance Against Depression. *J Epidemiol Commun Health*. 2008;62(6):545.
4. Tsigotis K, Gruszczynski W, Tsigotis M. Gender differentiation in methods of suicide attempts. *Med Sci Monit*. 2011;17(8):Ph65–70.
5. Rice SM, Fallon BJ, Aucote HM, Möller-Leimkühler AM. Development and preliminary validation of the male depression risk scale: furthering the assessment of depression in men. *J Affect Disord*. 2013;151(3):950–8.
6. Richardson C, Robb KA, O'Connor RC. A systematic review of suicidal behaviour in men: a narrative synthesis of risk factors. *Soc Sci Med*. 2021;276:113831.
7. Lynch FL, Peterson EL, Lu CY, Hu Y, Rossom RC, Waitzfelder BE, et al. Substance use disorders and risk of suicide in a general US population: a case control study. *Addict Sci Clin Pract*. 2020;15(1):14.
8. Esang M, Ahmed S. A closer look at substance use and suicide. *Am J Psychiatry Residents' J*. 2018;13(6):6–8.
9. Johnson JL, Oliffe JL, Kelly MT, Galdas P, Ogradniczuk JS. Men's discourses of help-seeking in the context of depression. *Social Health Illn*. 2012;34(3):345–61.
10. Rice SM, Aucote HM, Parker AG, Alvarez-Jimenez M, Filia KM, Amminger GP. Men's perceived barriers to help seeking for depression: longitudinal findings relative to symptom onset and duration. *J Health Psychol*. 2015;22(5):529–36.
11. Pirkis J, Spittal MJ, Keogh L, Mousaferiadis T, Currier D. Masculinity and suicidal thinking. *Soc Psychiatry Psychiatr Epidemiol*. 2017;52(3):319–27.
12. Feigelman W, Coleman D, Rosen Z. Examining the social origins and young adult life trajectories of high traditional masculinity (HTM) males: a group at elevated suicide risk. *Suicide Life Threat Behav*. 2021;51(4):696–714.
13. Joiner T. Why people die by suicide. Cambridge, MA: First Harvard University; 2005.
14. Owens C, Owen G, Belam J, Lloyd K, Rapport F, Donovan J et al. Recognising and responding to suicidal crisis within family and social networks: qualitative study. *BMJ*. 2011;343(7828).
15. Player MJ, Proudfoot J, Fogarty A, Whittle E, Spurrier M, Shand FL, Wilhelm K. What interrupts suicide attempts in men: a qualitative study. *PLoS ONE*. 2015;10.
16. Ftanou M, Cox G, Nicholas A, Spittal MJ, Machlin A, Robinson J et al. Suicide prevention public service announcements (PSAs): examples from around the world. *Health Communication* [Internet]. 2016 6 January 2017:[1–9 pp.]. Available from: <https://doi.org/10.1080/10410236.2016.1140269>

17. Pirkis J, Rossetto A, Nicholas A, Robinson J, Reavley N. Suicide prevention media campaigns: a systematic literature review. *Health Commun.* 2019;34(4):402–14.
18. Bossarte RM, Karras E, Lu N, Tu X, Stephens B, Draper J, et al. Associations between the Department of Veterans Affairs' Suicide Prevention Campaign and calls to Related Crisis lines. *Public Health Rep.* 2014;129(6):516–25.
19. Jenner E, Jenner LW, Matthews-Sterling M, Butts JK, Williams TE. Awareness effects of a youth suicide prevention media campaign in Louisiana. *Suicide Life Threat Behav.* 2010;40(4):394–406.
20. Oliver RJ, Spilsbury JC, Osiecki SS, Denihan WM, Zureick JL, Friedman S. Brief report: preliminary results of a suicide awareness mass media campaign in Cuyahoga County, Ohio. *Suicide Life Threat Behav.* 2008;38(2):245–9.
21. King KE, Schlichthorst M, Spittal MJ, Phelps A, Pirkis J. Can a documentary increase help-seeking intentions in men? A randomised controlled trial. *J Epidemiol Commun Health.* 2018;72(1):92–8.
22. Niederkrotenthaler T, Tran US, Gould M, Sinyor M, Sumner S, Strauss MJ, et al. Association of Logic's hip hop song 1-800-273-8255 with lifeline calls and suicides in the United States: interrupted time series analysis. *BMJ.* 2021;375:e067726.
23. Nicholas A, Requena SS, Ftanou M, Rice S, Fletcher J, Mackinnon A, et al. The effectiveness of a media-based intervention promoting help-seeking for mental health difficulties by Australian men: study protocol for a randomised controlled trial. *Trials.* 2022;23(1):288.
24. Joiner T, Pfaff JJ, Acres J. A brief screening tool for suicidal symptoms in adolescents and young adults in general health settings: reliability and validity data from the Australian National General Practice Youth Suicide Prevention Project. *Behav Res Ther.* 2002;40:471–81.
25. Wilson CJ, Deane FP, Ciarrochi JV, Rickwood D. Measuring help seeking intentions: properties of the general help seeking questionnaire. 2005.
26. Levant RF, McDermott R, Parent MC, Alshabani N, Mahalik JR, Hammer J. Development and evaluation of a new short form of the conformity to masculine norms inventory (CMNI-30). *J Couns Psychol.* 2020;67(5):622.
27. Herreen D, Rice S, Zajac I. Brief assessment of male depression in clinical care: validation of the male Depression Risk Scale Short Form in a mixed cross-sectional cohort study of Australian men. *BMJ Open.* 2022;12:e053650.
28. Le LK-D, Sancil L, Chatterton ML, Kauer S, Buhagiar K, Mihalopoulos C. The cost-effectiveness of an internet intervention to facilitate mental health help-seeking by young adults: randomized controlled trial. *J Med Internet Res.* 2019;21(7):e13065.
29. Herreen D, Rice S, Zajac I. Brief assessment of male depression in clinical care: validation of the male Depression Risk Scale Short Form in a mixed cross-sectional cohort study of Australian men. Submitted to *BMJ Open*.
30. Australian Bureau of Statistics. Australia's population by country of birth Canberra, Australia: Australian Bureau of Statistics; 2021 [Available from: <https://www.abs.gov.au/statistics/people/population/australias-population-country-birth/latest-release>]
31. Australian Bureau of Statistics. Census of Population and Housing - Counts of Aboriginal and Torres Strait Islander Australians Canberra, Australia: Australian Bureau of Statistics; 2021 [Available from: <https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/census-population-and-housing-counts-aboriginal-and-torres-strait-islander-australians/2021>]
32. Ftanou M, Ross A, Machlin A, Spittal MJ, King K, Nicholas A, et al. Public Service Announcements To Change Attitudes about youth suicide: a Randomized Controlled Trial. *Archives Suicide Res.* 2021;25(4):829–44.
33. Dumesnil H, Verger P. Public awareness campaigns about depression and suicide: a review. *Psychiatric Serv.* 2009;60(9):1203–13.
34. Torok M, Calear A, Shand F, Christensen H. A systematic review of Mass Media campaigns for suicide Prevention: understanding their efficacy and the mechanisms needed for successful behavioral and literacy change. *Suicide Life Threat Behav.* 2017;47(6):672–87.
35. Wakefield MA, Loken B, Hornik RC. Use of mass media campaigns to change health behaviour. *Lancet.* 2010;376(9748):1261–71.
36. Braun M, Till B, Pirkis J, Niederkrotenthaler T. Effects of suicide prevention videos developed by and targeting adolescents: a randomized controlled trial. *Eur Child Adolesc Psychiatry.* 2023;32(5):847–57.
37. Kirchner S, Till B, Plöderl M, Niederkrotenthaler T. Effects of it gets Better Suicide Prevention Videos on Youth identifying as Lesbian, Gay, Bisexual, Transgender, Queer, or other sexual or gender minorities: a Randomized Controlled Trial. *LGBT Health.* 2022;9(6):436–46.
38. Niederkrotenthaler T, Till B, Kirchner S, Sinyor M, Braun M, Pirkis J, et al. Effects of media stories of hope and recovery on suicidal ideation and help-seeking attitudes and intentions: systematic review and meta-analysis. *Lancet Public Health.* 2022;7(2):e156–68.
39. Wasserman D, Hoven CW, Wasserman C, Wall M, Eisenberg R, Hadlaczky G, et al. School-based suicide prevention programmes: the SEYLE cluster-randomised, controlled trial. *Lancet.* 2015;385(9977):1536–44.

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