

Reasons for Engagement: SME owner-manager motivations for engaging in a workplace mental health and wellbeing intervention.

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Abstract

Objective: Small-to-medium enterprises (SMEs) require specialized attention regarding workplace mental health (WMH), but can be challenging to engage in WMH promotion interventions. This cross-sectional study analyzed self-reported motivations of SME owner/managers who engaged in a WMH promotion intervention specifically designed for SMEs.

Methods: Data from 297 SME owner/managers was thematically coded prior to conducting multinomial logistical regression analyses to determine reasons for engagement based on a series of predictors, including owner/manager psychological distress, recent experience of a stressful work event, and business confidence.

Results: Owner/manager psychological distress, experience of a recent stressful workplace, and low 12-month business confidence incident were important predictors of engagement.

Conclusions: The findings provide important insights into the uptake of a WMH promotion intervention, which can inform the design and future recruitment strategies for WMH promotion interventions within the SME sector.

Keywords: SME Owner/Manager; Workplace Mental Health; Wellbeing; Intervention; Engagement

ACCEPTED

Depression and anxiety are among the leading causes of morbidity in the developing world [1], and are common within working populations, affecting employees and managers at all levels of an enterprise's structure [2]. Therefore, a large proportion of the social and economic consequences of mental health disorders are borne by the business community. Organizational factors common in small-to-medium enterprises (SMEs), including multiple roles, long work hours, and work/life imbalance are known precipitants to psychological distress [3]. This places the sector at particular risk for workplace mental health (WMH) problems, and the associated social and economic costs.

The workplace is increasingly viewed as an important setting for mental health promotion [4]. Investment in WMH promotion programs is often recompensed through gains in productivity [5], fewer absences [6], improved work outcomes [7] and reduced depression and anxiety symptomology [8].

However, although WMH promotion programs have proven efficacious, widespread adoption has been slow [9]. Furthermore, implementation of these programs has typically been limited to large-sized organizations. Programs that are routinely offered within larger organizations, such as Employee Assistance Programs (EAPs; which involve subsidized or fully sponsored counselling for employees provided by in-house or outsourced psychologists or social workers) and stress management training are difficult to implement in smaller enterprises, which may not have the relevant resources, knowledge or competence to support these types of programs [10; 11]. For example, research in the United States has reported that only 4.6% of smaller enterprises offer holistic health promotion programs for employees, compared with 24% of larger businesses [12]. Smaller businesses and organisations also often have less success

implementing health promotion initiatives than larger organisations who have the benefit of economies of scale and additional resources [13].

Research has shown that engagement in workplace health promotion programs decreases as the size of the workplace decreases [14]. The most commonly cited reasons for this include a lack of interest, lack of knowledge, financial costs, lack of appropriate resources and a lack of management support [15; 16; 12]. Furthermore, privacy issues are often a bigger concern within smaller workplaces [14; 12]. It is also suggested that SME owner/managers are often so preoccupied with the daily activities of running their business that time to engage in the implementation of training and skills development in health promotion is limited or non-existent [17]. As such, evidence regarding the effectiveness of WMH interventions in SMEs is lacking, despite SMEs employing a large proportion of working populations in most developed economies [3].

Workplace mental health and the SME context

The term SME encompasses a variety of organizational forms, including start-ups, sole traders, family businesses, partnerships, contractors, freelancers and small-to-medium businesses employing less than 200 employees [18]. SMEs account for approximately 99% of all businesses in the United Kingdom [19] and Australia [20]. Similarly, in the USA, SMEs represent 50.2% of private-sector employment [21]. Thus, SMEs provide for a large proportion of employment opportunities, while their smaller size enables them greater flexibility to respond to market demands, thereby making them critical to continued global economic growth [18].

SME owner/managers encounter high job demands, along with unique challenges associated with running a small business, including financial viability stressors, and limited human resources and organizational supports [3]. Prolonged and intense exposure to these

stressors can place individuals at increased risk of harmful psychological outcomes, such as burnout, anxiety, depression and impaired wellbeing [22]. In addition, the size, structure and nature of SME operations means that these businesses have limited capacities and resources to adopt and integrate mental health promotion initiatives, thereby compounding the risk for impaired mental health and wellbeing [23].

As highlighted above, little is known about psychological distress among SME owner/managers and there is a paucity of intervention research in this sector [24]. It is generally recognised that SMEs are difficult to engage in research trials, due to SME owner/managers' perceived lack of resources (e.g. time and financial) to participate and implement programs [25; 26]. For example, in a study evaluating a worksite wellness intervention designed specifically for SMEs, only 21% of the 260 participating owner/managers responded to the follow-up survey [12]. In a further study, it was reported that low participation on the part of 'high risk' SME employees is an additional barrier to engagement in workplace health and wellbeing programs [27]. Taylor et al [28] have also demonstrated that one in five SME owner/managers do not believe health promotion activities belong in the workplace, with a further 50% reporting being unsure or undecided. Subsequently, calls have been made [12] to develop greater understanding regarding the motivations of SME owner/managers to engage with workplace health promotion interventions.

SME engagement in WMH promotion interventions

Knowledge of factors associated with SME owner/managers' propensity to engage in WMH promotion programs is vital for informing the future design and delivery of these high priority programs. WMH promotion programs need to be brief, broadly appealing and easily incorporated into a variety of workplace settings [9] including the SME sector. Operational

challenges associated with managing a SME may often preclude attendance at face-to-face workshops, thereby suggesting that self-directed intervention programs may be a more effective strategy for reaching this population. Self-directed intervention programs have demonstrated efficacy and acceptability for mild to moderate mental disorders [29; 30]. However, non-uptake of programs using written self-help materials has also been reported as high as 48% for individual with anxiety and depression [31]. In the workplace, the efficacy of health promotion relies on the effective initial engagement and sustained participation of all employees, particularly those most at risk.

Business in Mind (BIM; 11) is a self-directed, universal WMH promotion intervention specifically designed for SME owner/managers. The intervention consists of the provision of a free 60 minute DVD and accompanying resource kit that is designed to assist owner/managers to identify signs and symptoms of anxiety and depression, and included cognitive-behavioural strategies for coping with stress, promoting positive relationships, creating work-life balance and developing positive psychological resources [32]. A randomised control trial design was employed to examine the efficacy of the program (see [11], for study protocol).

As there are no other published trials of mental health promotion programs specifically designed for the SME sector, little is known about the profile and self-reported motivations of SME owner/managers who may engage in a mental health intervention. Subsequently, calls have been made for research to investigate the motivating factors associated with SME owner/managers' engagement with these programs [e.g. 12] to better understand how to best involve SMEs with WMH interventions. This cross sectional study responds to these calls by analysing the demographic profile and self-reported motivations of SME owner/managers who registered in the BIM trial. Four primary research questions direct our analysis: (i) What are the

demographic characteristics of SME owner/managers who engaged in BIM? (ii) What were the expressed motivations for SME owner/managers to engage in BIM? (iii) Did the experience of a stressful life event or workplace incident precede engagement in BIM? and (iv) How does psychological distress relate to SME owner/manager engagement in BIM?

Method

Sample & Procedure

Owner/managers from the SME sector within Australia were invited to participate in the BIM trial via a national recruitment strategy across a 24-month period. SME owner/managers were eligible to participate in the BIM trial, providing that they had a managerial role within a business employing less than 200 employees, were over 18 years of age and had access to a telephone and computer/DVD player. Initial recruitment involved the use of a mailing list of approximately 1000 businesses provided by one of the research partner organizations (Chamber of Commerce and Industry, an Australian business association). However, despite repeat mail-outs only 68 eligible participants were recruited via this strategy after the first six months. Subsequently, the use of snowball sampling was used to attempt to increase the sample size. This involved print, radio and social media recruitment strategies as well as presentations at relevant conferences and small business expos, and promoting the trial via government business support service, workplace health and safety seminars and workshops, business association training events and the authors' University website.

Participants registered their interest in the research by accessing a dedicated website, which provided further information about the study, including its voluntary nature. Participants were then sent the baseline survey material, either online via a secured site, or posted a paper questionnaire, if preferred. The data analyzed represents a combination of registration and

baseline data provided by 297 SME owner/managers, prior to randomization to a research trial group. This reflected the required sample for sufficient evaluation for the randomized control trial of BIM (see [11] for details regarding power calculation for the randomized control trial). The demographic characteristics of the sample are shown in Table 2, and discussed in more detail in the results section.

Measures

Participants were asked to provide demographic information including age, gender, education level, business industry type, and the average number of hours that they worked each week. In addition, participants were asked to indicate whether their workplace provided an EAP. Furthermore, participants were asked about their 12-month business confidence, their primary reasons for engaging with BIM trial, their recent experiences of a stressful life and/or work-related event and their feelings of psychological distress. Each of these measures will be explained in more detail in the following paragraphs.

Participants were asked to rate their 12-month business confidence by responding to the statement *“I feel confident about the business’ performance over the next 12 months”* on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Participants were also asked to describe their primary reason for engaging with the BIM trial (*“Please tell us briefly why you have decided to register for the study”*) by responding with the provision for respondents to provide a free text response.

Additionally, participants were asked to indicate if they had experienced a stressful life event in the past three months (*“Over the past 3 months have you experienced a stressful life event, e.g. relationship, health, financial, family, employment?”*). Where applicable, participants

were asked to describe the stressful life event using a free text response and to rate how stressful the event was, from 1 (*not stressful*) to 10 (*most stressful*).

Participants were also asked to indicate if they had experienced an event at work that had had an adverse effect on their psychological wellbeing in the past three months (*“In the past 3 months has there been an incident or event in your workplace that has had a negative effect on your psychological well-being?”*). Where participants answered yes to this question, they were asked to briefly describe the nature of the event using a free text response and to rate how effectively the event was managed so that the effect(s) on the participant and others in their workplace were minimized from 1 (*not at all effectively*) to 5 (*extremely effectively*). Participants were also asked if they had previously sought help from a professional in the past 3 months for a mental health concern (*“Have you sought help from a professional in the past 3 months for a mental health concern?”*).

SME owner/manager psychological distress was measured using the Kessler Psychological Distress Scale (K10; 33). The K10 is a 10-item measure that assesses the frequency of non-specific psychological distress symptoms during the previous four weeks. Participants were asked, *“During the last four weeks about how often did you feel 1) tired for no good reason; 2) nervous; 3) so nervous that nothing could calm you down; 4) hopeless; 5) restless or fidgety; 6) so restless that you could not sit still; 7) depressed; 8) that everything was an effort; 9) so sad that nothing could cheer you up; 10) worthless*. Items were rated on a 5-point Likert scale from 1 (*None of the time*) to 5 (*All of the time*). The total K10 score was calculated by summing all 10 items. K10 scores could range from 10 to 50. In this study, scores of 21 and below were categorised as ‘low’ psychological distress, while scores of 22 and above were categorised as ‘high’ psychological distress as per K10 scoring protocol [33]. Research has

consistently found that the K10 has good reliability in screening for common mental health disorders and has high internal consistency (Cronbach's alpha = 0.84; [34]; [35]). Cronbach's alpha for the present study was 0.93.

Analysis

Qualitative data collected in relation to SME owner/managers' reasons for engagement with BIM, and their recent (i.e. within three months) experiences of stressful life and work events were numerically coded according to themes. Numerical coding of textual data provides a description of the phenomenon and its frequency, and can counteract bias by enhancing analytical reliability [36]. Two coding stages occurred to refine and confirm the phenomenon identified in the data. The first stage of coding (conducted by fourth author) was to categorize the qualitative data provided in relation to owner/managers' primary reason for engagement with BIM, their experience of a recent stressful life event and their experience of a recent stressful work incident into themes. The second stage of coding involved a secondary coder to determine rates of inter-rater reliability and account for potential coding bias. Once all qualitative data was coded, a set of tables was created to provide a definition and example quotes of each theme, used by the secondary coder for analysis (first author).

As shown in Table 1, coding of the reasons for engagement data resulted in the generations of four themes. Ten themes were generated to reflect owner/managers' descriptions of recently experienced stressful life events, while a further nine themes were generated to reflect owner/managers' descriptions of recently experienced stressful workplace incidents. The inter-rater reliability tests across the data for reasons for engagement, stressful life event and workplace incident revealed high average of 88%, 92% and 93% respectively. Coding incongruences were then discussed and resolved with the second named author.

Multinomial Logistic Regression was then used to determine the reasons for engagement with BIM based on predictors including owner/manager psychological distress, stressful life event experiences, stressful workplace incident experiences, help seeking behaviour and 12-month business confidence. Multinomial Logistic Regression was conducted using the R “mlogit” [37] package. In order to enable multinomial logistics regression analysis, the General Interest reason for engagement theme was used as the reference category for each regression analysis. The General Interest theme, which reflected responses such as “*I am interested in this field of study*”, was selected as the reference category as it enabled investigation of whether owner/managers were motivated to engage in BIM for a specific reason, other than having a broad interest in workplace mental health research. A baseline model was created with gender and age as confounding factors. Each predictor was added to the baseline model in isolation. The fit of each model was compared with the fit of the baseline model to determine if the addition of the predictor improved the model fit. The assumption of collinearity was tested using the variance inflation measure (VIF) and tolerance. VIF and tolerance ranged from 1.05 to 1.26 and 0.80 to 0.96 respectively, indicating collinearity was not violated for any of the models. The relationship between the interaction between K10 and log K10 and the log of the outcome, reasons for engagement, was tested and found to be non-significant (p-value ranging from .34 to .52), indicating the assumption for linearity of the logit was not violated.

Results

Descriptive data, including frequencies and percentages for categorical variables, and means, standard deviations and range for continuous variables is shown in Tables 2 and 3.

In relation to the first research question regarding the demographic profile of SME owners/managers who engaged with the BIM intervention, predominantly more females (63%) registered in the trial than males. Seventy-five percent of the owner/managers had achieved either a diploma or a degree level of education and 37% were aged between 40-49 years. The largest proportion of participants represented the services (20%) and health (20%) industries. On average, SME owner/managers in the trial were responsible for directly supervising five employees (range 0-63) and worked an average of 46 hours per week. The majority (71%) of owner/managers were working within a business that did not have access to an employee assistance program. Furthermore, 76% of the sample reported a high level of 12-month business confidence.

Almost three quarters (72%) of the sample reported having experienced a stressful life event in the three months prior to registering in the BIM trial (Table 1). Approximately half (47%) of these events related to personal stressors (e.g. family or relationship difficulties), while a further 21% related to financial stressors. The average severity of reported stressful life events was high (average rating 7.6 on a 10-point Likert scale).

Half of the sample (49%) also reported having experienced a stressful work incident in the three months prior to registering in the BIM trial (Table 1). Most of these incidents related to workplace bullying or conflict (37%), financial concerns (29%) and staff management issues (17%). In half of these cases (51%), owner/managers reported that these stressful workplace incidents had been ineffectively managed.

As shown in Table 2, approximately one quarter (28%) of the sample reported that they had experienced a mental health problem within the past 3 months for which they had sought professional assistance (e.g. GP, psychologist). This was consistent with participants' reported

psychological distress ratings on the K10, whereby 32% of the sample reported experiencing high levels of distress (Table 2).

Our second research question related to investigating the reported motivation for SME owner/managers engagement with BIM. As shown in Table 1, a desire to undertake a proactive management strategy towards WMH was the primary reason participants engaged in the BIM intervention (35%). This was followed by reasons associated with the owner/managers' own personal mental health (24%), general interest (20%) and reasons associated with managing employee mental health (11%).

To investigate potential predictors for reasons for engagement, we conducted a series of multinomial logistic regressions, adjusted for age and gender (Table 4). Regarding research question three, the results showed that experience of a stressful life event was not a significant predictor of whether an owner/manager engaged in BIM for personal mental health reasons ($b = 0.38, p = .38$); employee mental health management reasons ($b = -0.17, p = .74$); nor proactive management reasons ($b = -0.39, p = .28$) compared to general interest reasons (Table 4). However, the results did show that the experience of a stressful workplace incidence significantly predicted owner/manager engagement if they nominated personal mental health reasons ($b = 1.24, p < .001$), employee mental health management reasons ($b = 1.17, p = .01$), and proactive management reasons ($b = 0.76, p = .03$) compared to general interest reasons (Table 4). This means that the likelihood (odds) of owner/managers engaging in BIM for personal mental health reasons over general interest were 245% higher for those who had experienced a stressful workplace incident (95%CI 63-630%). They were also 223% higher (95%CI 31-701%) likelihood (odds) of engage in BIM for employee mental health management reasons, and 115% (95%CI 9-322%) higher likelihood (odds) to engage in BIM for proactive management reasons

over general interest reasons for owner/managers who had experienced a recent stressful workplace incident compared to no stressful workplace incident (Figure 1).

In addition to examining the influence of a recent stressful life or work event in predicting engagement with BIM, we also examined the influence of recent help seeking behavior and 12-month business confidence. As shown in Table 4, recent help seeking for a personal mental health condition did not significantly predict owner/manager engagement in BIM for personal mental health reasons ($b = 0.02, p = .96$), employee mental health management reasons ($b = -0.96, p = .09$), nor proactive management reasons ($b = -0.43, p = .23$) compared to general interest reasons. However, 12-month business confidence significantly predicted owner/manager engagement in BIM for personal mental health reasons ($b = 1.40, p < .001$), but not employee mental health management reasons ($b = -0.54, p = .41$), or proactive management reasons ($b = -0.06, p = .88$) compared to general interest reasons. This means that the likelihood (odds) of engaging in BIM for personal mental health reasons over general interest reasons was 304% higher (95% CI 73-840%) for owner/managers with low 12-month business confidence compared to high business confidence (Figure 2).

In relation to research question four, the results showed that high psychological distress (i.e. high K10 scores) significantly predicted engagement in BIM for personal mental health reasons ($b = 0.12, p < .001$), and employee mental health management reasons ($b = -0.13, p = .007$), but not proactive management reasons ($b = 0.01, p = .75$) when compared to general interest reasons. This means that for every one unit increase in K10 score, the likelihood (odds) of an owner/manager engaging in BIM for personal mental health reasons over general interest was 13% higher (95% CI 7-19%). Furthermore, for every one unit increase in K10 score, the likelihood (odds) of an owner/manager engaging in BIM for employee mental health

management reasons over general interest was 13% lower (95% CI 4-21%). Thus, SME owner/managers with higher psychological distress were more likely to engage in BIM because of their own personal mental health reasons, and thereby less likely to engage due to employee mental health management reasons (Figure 3).

Discussion

SME owner/managers encounter high job demands and long working hours that can place them at increased risk of impaired mental health, including anxiety and depression [22]. Compounding this issue, prevention, promotion and management of WMH among SMEs can be challenging because their size and structure can make responsibilities related to human resources difficult [3]. Furthermore, SME engagement with WMH interventions and research to investigate their efficacy is often low due to perceived lack of time and financial resources [26]. Therefore, this study aimed to investigate the demographic profile and self-reported motivations of SME owner/managers who registered in a trial investigating the efficacy of a WMH promotion intervention specifically designed for SMEs - *Business in Mind* (BIM). Four primary research questions directed our analysis: (i) What were the demographic characteristics of SME owner/managers who engaged in the BIM? (ii) What were the expressed motivations for SME owner/managers engagement with BIM? (iii) Did the experience of a stressful life event or workplace incident precede engagement with BIM? and (iv) How does psychological distress related to SME owner/manager engagement in BIM?

In relation to the first research question regarding the demographic characteristics of SME owner/managers who engaged with the BIM trial, we found that notably more females registered in this trial than males. This finding is consistent with previous research, which has reported lower male uptake in workplace health interventions [38]. Although psychological

interventions that are delivered via flexible mediums (rather than traditional face-to-face delivery) can improve male rates of participation [29] mental health continues to have a strong stigma attached to it, particularly within the workplace context [39]. Recent research has indicated that mental health stigma rates are highest among males working within the private sector and without a prior personal experience of mental health (e.g. depression; [40]). This in part, may explain the lower rates of male initial engagement within the BIM trial.

We also found higher engagement from SME owner/managers who had attained higher levels of education. Half of the sample in this study were university educated, with a further 25% having completed a diploma level of education. Again, this finding is consistent with previous research that has reported that people with higher levels of education tend to engage more readily with workplace health promotion programs, and therefore tend to be over-represented in intervention trials [38]. We also found that we had strong representation from the health and services industries (40% collectively) in this study, with notably less participation from owner/managers from the building and construction, manufacturing, transport, IT, finance and agriculture sectors (each with less than 5% representation). Although mental health conditions are seen in all industries, some industries are recognised as having a higher prevalence of mental health conditions, including essential services industries (e.g. electricity, gas and water), information media and telecommunications, and the financial and insurance industries [41]. This suggests that while the BIM recruitment strategies engaged SME owner/managers from some of these high-risk industries (e.g. services), other high-risk industries were under-represented in this sample (e.g. finance and insurance [41]). Thus, this finding highlights the need for future SME WMH promotion programs to consider recruitment strategies that specifically target these 'at risk' industries.

In considering the psychological health of the owner/managers in this study, we found that approximately one-third of our sample were experiencing high psychological distress (i.e. clinical levels of distress) at the time of registering for the BIM trial. The high level of psychological distress reported by this sub-group is similar to that reported by individuals from within the general Australian population who have experience a diagnosed mental health condition in the past 12 months [41]. Research has shown that increased psychological distress can have significant economic costs related to work performance, workplace safety, absenteeism, and early retirement [42], as well as negative flow on effects to the psychosocial work environment [43]. Additionally, other research has reported that low participation on the part of 'high-risk' employees is a barrier to the engagement with workplace health promotion programs [27]. Thus, this finding emphasizes the need for (i) WMH programs specifically designed for SMEs and; (ii) encouragement for SME owner/managers to engage with these programs as a preventative strategy so that they can be most efficacious and cost-effective for businesses [44].

In regards to our second research question, our analyses revealed four primary reasons that SME owner/managers engaged with this intervention. These related to: (i) general interest in the project/WMH; (ii) a desire to undertake a proactive management strategy towards WMH; (iii) SME owner/managers' personal experience of mental health; and (iv) a need to manage employee mental health issues. Of these primary reasons, a desire to undertake a proactive management strategy towards WMH was the most commonly cited motivation by owner/managers to participate in BIM. This aligns with previous research that has suggested SME owner/managers are more likely to be motivated to engage in workplace health promotion activities by 'company-success' factors and where engagement provides a strong business case [45]. However, we also acknowledge that this finding suggests that overall the sample of

owner/managers who registered for BIM were already an engaged and motivated cohort of owner/managers. Therefore, in promoting future WMH programs for SME owner/managers it would be essential to consider strategies that appeal to owner/managers who are less engaged and interested in this space. This might include ensuring that a strong business case to support involvement in the program is presented and the benefits of the program (for the owner/manager, employees and the overall business) are conveyed to convince owner/managers that the program is worth their time and money.

Our third research question related to understanding whether a recent stressful life event or workplace incident preceded engagement in the BIM trial. Our results showed that a recent experience of a stressful life event was not a significant predictor of engagement in BIM. However, experience of a recent *workplace incident* was a significant predictor, in that it increased the likelihood of an owner/manager engaging in the program for personal mental health reasons and proactive management reasons over general interest reasons compared to those owner/managers who had not recently experienced a stressful workplace incident. This finding offers new insights into the potential motivations for SME owner/managers to engage with WMH programs. In examining the nature of the workplace incidents experienced by the owner/managers in this study, the largest proportion of these incidents related to workplace conflicts and bullying. Furthermore, just over half of the owner/managers who reported experiencing a recent stressful workplace incident also reported that this incident had been ineffectively managed.

This finding may suggest that in many cases SME owner/managers lack the necessary resources often available within larger businesses and organizations to deal with common workplace issues, such as conflict and bullying. While this may in part be due to SMEs having

no dedicated human resource management functions [11], it may also highlight that many SME owner/managers have not developed skills or received training in dealing with these types of management challenges. Individuals who start-up and manage their own business often do so with a specialised knowledge and skill set that relates to the core business, but not necessarily the people management skills to effectively and efficiently respond to interpersonal difficulties in the workplace [11]. Subsequently, and as demonstrated in this study, the management of interpersonal conflicts can become stressful and burdensome for SME owner/managers. Thus, this finding supports the need for interpersonal conflict resolution education and skills development training to be integrated into WMH programs for SMEs as part of a preventative strategy for work-related stress.

In addition to examining the influence of a recent stressful life or work event in predicting engagement with BIM, we also examined the influence recent help seeking behaviour and business confidence played in predicating engagement with the BIM trial. Although just under one-quarter of owner/managers in this study reported having sought professional assistance for their mental health in the three months prior to registering for the BIM trial, we did not find that help seeking was a significant predictor of reasons for engagement with the intervention trial.

However, in regards to owner/manager business confidence, we found that approximately one quarter of our sample reported low 12-month business confidence. Furthermore, among the owner/managers that registered for this study we found that having low business confidence was a significant predictor of engaging in BIM; whereby low business confidence increased the likelihood of an owner/manager engaging for reasons associated with their own personal mental health (over general interest) compared to those with high business confidence. This finding may

also demonstrate the potential for a downward spiral to emerge, whereby low business confidence erodes owner/managers' psychological resources (e.g. resilience, efficacy), which lead to poorer coping strategies and impaired owner/manager mental health, which may then impact owner/managers' work-related performance.

Our final research question investigated how SME owner/manager psychological distress related to SME owner/manager engagement in BIM. Our results indicated that among the owner/managers who registered for this study having high psychological distress was a significant predictor of engaging with BIM. Specifically, owner/managers reporting high psychological distress were more likely to engage for reasons associated with personal mental health (over general interest reasons), compared to those with low psychological distress. Furthermore, almost one third of our sample reported experiencing clinical levels of distress at the time of registering for the trial. This is concerning given that owner/manager impaired mental health can divert personal resources away from effectively running a business and subsequently, have a detrimental impact on work performance and business success [3]. If a managers' mental health is compromised it can also have flow on effects to the psychosocial work environment experienced by their employees [43; 46]. As such, this finding highlights the importance of preventative WMH strategies for SMEs that provide benefit not only to the overall business, but also the owner/managers' personal mental health and wellbeing.

Limitations and Future Directions

This is the first known study to specifically examine the self-reported motivations of SME owner/managers to engage in a WMH promotion intervention. As such, it offers important insights to help inform future targeting strategies for WMH health programs within the SME sector. Nevertheless, there are limitations that need to be acknowledged and addressed in future

research. First, we acknowledge that the sample in this study was a relatively proactive group of SME owner/managers who were interested in, and motivated to learn more about WMH. This is demonstrated by owner/managers' cited reasons for engaging with the BIM trial, with desire to undertake a proactive management strategy towards WMH, and general interest cited as primary reasons for engagement. Thus, while this study can provide insights into the characteristics of the SME owner/managers who engaged with *this* WMH promotion intervention and their reasons for doing so, it does not provide understanding regarding those owner/managers who chose not to engage with the intervention.

Previous research has reported that up to one fifth of SME owner/managers do not believe that health promotion activities belong in the workplace and are therefore unlikely to promote or engage in these activities [28]. As such, it is clear that more education regarding the benefits of workplace health promotion is needed within this sector, as changing these notions is a first step to increasing uptake of these types of programs [15]. While inferences can be made from our findings regarding where future SME mental health promotion interventions need to be targeted, future research aimed at developing more in-depth understanding regarding SME owner/managers' attitudes and beliefs towards WMH may be important to better understand the barriers to engaging SMEs with mental health promotion interventions.

In addition, as with all studies of this type, there is inherent self-selection bias for those that choose to participate. Consequently, we cannot and do not assume that our sample is representative of all SME owner/managers and as such, our findings are limited in terms of their generalizability. Most notably and as already discussed, this is evident in the current study by the stronger presentation of SME owner/managers from the health and services industries. We also had higher representation from female owner/managers and owner/managers with higher levels

of education attainment. Given that gender and education have been shown to be related to managers' attitudes towards mental health [47], these biases need to be considered when interpreting the reported results.

Furthermore, in this study we did not differentiate between SME owner/managers and SME managers, nor did we analyse our findings in relation to SME structure, or owner/manager tenure due to the relatively small sample size and lack of statistical power. Thus, our sample is comprised of owner/managers who own and manage their own SME, as well as managers who are employed to manage a SME, but who do not own the business. It also consisted of owner/managers operating as sole traders and owner/managers running larger SMEs employing more people and with access to relatively more resources. Furthermore, some of the owner/managers who participated in this study had extensive experience working within the SME sector, while others were only just commencing in enterprise. Accordingly, there are likely differences between these sub-groups of owner/managers in terms of their reported motivations to engage with a WMH promotion intervention. Future research may benefit from undertaking a more nuanced analysis of reasons for engaging with WMH promotion interventions within SMEs, by considering the influence of SME ownership, entrepreneurial orientation, tenure and business experience.

It should be also noted that the owner/managers in this study were encouraged to briefly describe their *primary* reason for engaging with the BIM trial. As such, it is possible that there was overlap of the reasons for engagement themes and/or other reasons that may have affected the primary reason that owner/managers reported in this study. For example, the reporting of a proactive management strategy (e.g. *"I want to ensure the wellbeing of my staff"*) as the primary reason for engaging with BIM could have been influenced by the owner/managers previous

experiences of workplace mental health. While the engagement question in this study was designed to capture owner/managers' main motivation for registering for BIM as part of a relatively brief (15 minute) baseline survey, future research could extend understanding of SME owner/manager reasons for engaging with WMH promotion interventions using an interview-based research design.

Implications

Despite the aforementioned limitations, the findings from this study provide important implications for the design and targeting of future WMH promotion interventions within the SME sector. Firstly, our findings suggest that future intervention targeting may need to have a strong focus on engaging with male owner/managers and owner/managers from specific industries, including those recognised as have a heightened risk for WMH problems, including essential services industries (e.g. electricity, gas and water), information media and telecommunications, and the financial and insurance industries.

The findings from this study may also suggest the importance of identifying and engaging SMEs that may have faltering business confidence. The interplay between business confidence and impaired owner/manager mental health is intertwined, whereby either could precede the other. However, we suggest that low business confidence could potentially trigger a downward spiral, whereby owner/manager psychological resources (e.g. resilience, efficacy) are depleted, reducing work performance, and in turn, negatively impacting business performance and the longer-term mental health outcomes for owner/managers. Thus, early engagement with SMEs with faltering business confidence may be crucial to disrupting this downward spiral and preventing business failure.

Furthermore, our findings suggest the importance of conflict management and interpersonal relationship skills among SME owner/managers. Workplace conflict and bullying were cited as primary sources of work-related stress, which motivated owner/manager engagement in the BIM trial. Previous research has shown that SME owner/managers often lack the resources and/or skills and confidence to deal with interpersonal difficulties in the workplace, including bullying [11]. Thus, the inclusion of knowledge and skills development for managing interpersonal challenges within the workplace may be useful to include in future SME WMH promotion programs.

Our findings also underscore the importance of promoting a preventative approach to WMH within the SME sector. Although, the sample of owner/managers in this study were motivated to engage in BIM because they wanted to undertake a proactive management strategy towards WMH, a notable proportion of these owner/managers were already experiencing clinical levels of psychological distress. Without a preventative approach to WMH (including their own mental health and wellbeing) owner/managers' resources may be diverted away from effectively running a business, which in turn, could have a detrimental impact on work performance, the psychosocial work environment and overall business success [43; 3; 46].

Using 'SME champions' (i.e. SMEs who take up WMH promotion activities and are able to see and measure their benefit [28]), in the marketing of WMH intervention campaigns could be one way of promoting the importance of prevention and early intervention within this sector. Research has shown that when SMEs engage in workplace health promotion activities they often report benefit and value of these programs, highlighting "that once adopted, positive sentiments prevail" [28]. Additionally, other research has reported that SME owner/managers are more likely to be motivated to engage in health promotion activities by 'company-success' related

factors, where the benefits to the business are clearly demonstrated [45]. Thus, SME mental health champions could help promote the ‘business case’ for a preventative approach to WMH and the positive impact these types of interventions can have on overall business performance.

Conclusion

SME owner/managers typically encounter work conditions associated with high levels of work-related stress and impaired mental health and wellbeing. Despite this, they are recognized as being particularly challenging to engage in WMH promotion interventions, thereby prompting calls for research to develop a greater understanding regarding of the motivations of SME owner/managers to engage with these types of interventions. Consequently, this study has examined the demographic profile and self-reported motivations of owner/managers who registered in a WMH promotion intervention specifically designed for SMEs. Our results showed that business confidence, psychological distress and recent experience of a stressful work incidence were important predictors of engagement among the SME owner/managers that registered for this intervention trial. However, our findings suggest that more targeted strategies are needed to boost SME owner/manager engagement with WMH promotion programs, particularly with male owner/managers, and SMEs within certain industries (e.g. agriculture, finance). Our findings also suggest the importance of early engagement with SMEs so to maximize the benefits of WMH promotion interventions. Overall, the findings from this study could guide future strategies to enhance engagement of those working in SMEs in WMH promotion activities so to produce benefits for owner/managers and their businesses.

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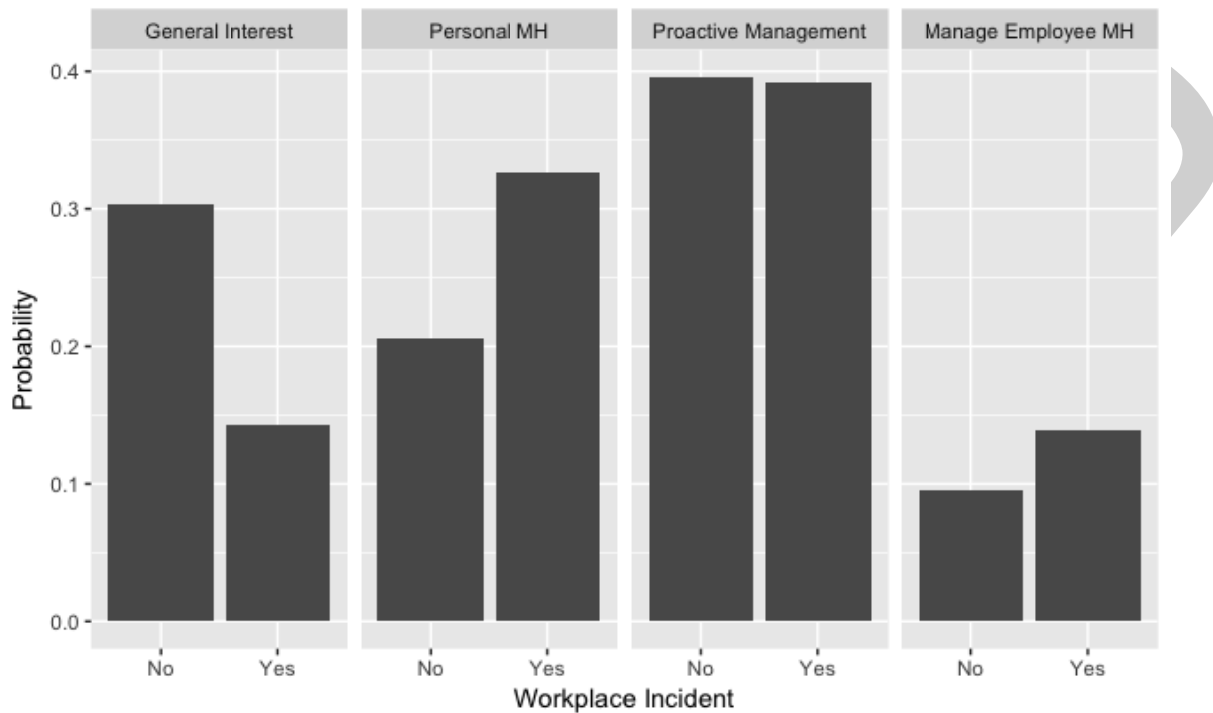
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Figure 1. Probability predictions of owner/managers' reasons for engaging in BIM based on whether owner/managers had experienced a stressful workplace incident in the past three months.



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Figure 2. Probability predictions of owner/managers' reasons for engaging in BIM based on their reported 12-month business confidence level.

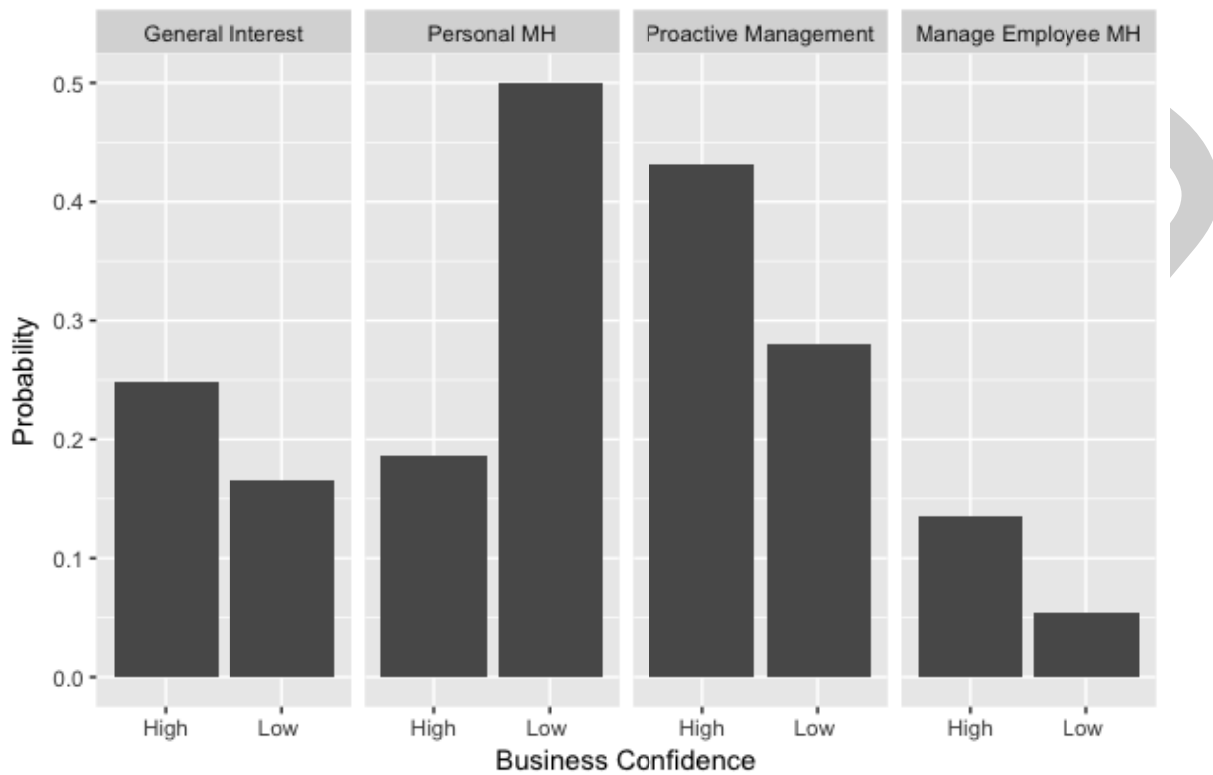


Figure 3. Probability predictions of owner/managers' reasons for engaging in BIM based on reported levels of psychological distress (K10 scores).

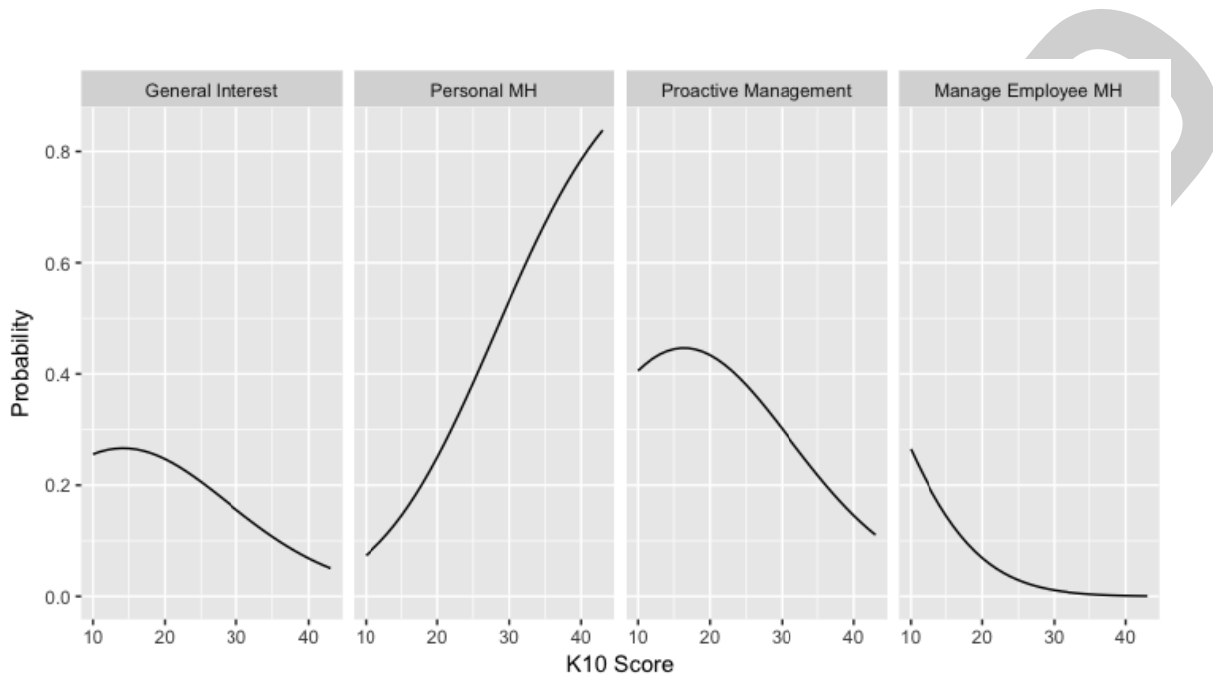


Table 1. Coding themes, frequencies and percentages for reasons for engagement in BIM, and experiences of recent stressful life events and workplace incidents.

Theme	Example response	%	N
Reasons for Engagement			
Proactive Management Strategy	<i>I want to ensure the wellbeing of staff and recognize signs of stress in them and myself</i>	45%	(129)
Personal Mental Health	<i>I have personal experience of depression and anxiety</i>	24%	(70)
General Interest	<i>I am interested in this field of study</i>	20%	(57)
Employee Mental Health Management	<i>A number of my staff are experiencing depression</i>	11%	(33)
Missing			(8)
Stressful Life Event*		72%	(214)
Personal Stressors (family, relationships)	<i>Marriage separation and my daughter-in-law has post-natal depression and panic attacks.</i>	47%	(101)
Financial Concerns	<i>I am almost at the end of my financial resources</i>	21%	(45)
Work/Family Stress (e.g. Work-Family Conflict)	<i>Balancing education, family and an independent business</i>	12%	(26)
Organisation/Industry Change	<i>A restructure at work</i>	6%	(12)
Workload	<i>Heavy workload associated with a review of the organisation</i>	5%	(10)
Workplace Conflict	<i>Tensions with people at work who have differing opinions with how we should proceed.</i>	4%	(8)
Workplace Duties	<i>Work is too busy and I perform many roles within the company</i>	2%	(5)
New Business	<i>Have just started my own business</i>	2%	(4)
Stressful Work	<i>Work is constantly challenging. We are an aged care facility and deal with illness and death on a regular basis.</i>	1%	(2)
Personal Mental Health Issues	<i>I am continuing</i>	<1%	(1)

	<i>treatment for depression</i>	
Stressful Work Incident*		49% (145)
Workplace Bullying/Conflict	<i>A manager has behaved aggressively in dealing with a recent situation</i>	37% (51)
Financial Concerns	<i>Sales are down and cash flow is tighter</i>	29% (40)
Staff Management Issues	<i>Employees have left without giving notice</i>	17% (23)
Workload	<i>I am working a lot of overtime</i>	7% (10)
Job/Career Decision	<i>I am currently being headhunted and am uncertain about which opportunity to choose</i>	4% (6)
Workplace Restructure	<i>We have been undergoing a restructure for past 18 months</i>	3% (4)
New Business	<i>I am launching a new business</i>	1% (2)
Personal Mental Health Issues	<i>I have been experiencing panic attacks</i>	1% (1)
<i>Missing</i>		(8)

Notes: * Thematic coding conducted only for participants who indicated that they had experienced a stressful life event and/or a stressful work incident in the past three months.

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Table 2. *Frequencies and percentages for categorical variables*

	N	%
Gender		
Male	109	37
Female	188	63
Age		
18-29	26	9
30-39	62	21
40-49	109	37
50-59	78	26
60 +	22	7
Education		
Secondary School (Year 10)	31	10
Matriculation (Year 12)	16	5
Diploma/Associate Diploma	72	24
University Degree	150	51
Other	28	9
Industry		
Services	53	20
Health	53	20
Retail	16	6
Building & Construction	14	5
Finance	10	4
Manufacturing	8	3
Transport	8	3
Innovation	8	3
Tourism	7	3
Wholesale	5	2
Agriculture	3	1
Mining	1	<1
Other	82	30
<i>Missing</i>	29	
Employer-provided access to an Employee Assistance Program?		
Yes	86	29
No	211	71
Business Confidence		
High	224	76
Low	72	24
<i>Missing</i>	1	
Mental Health Treatment Sought in Past 3 Months		
Yes	82	28
No	210	72
<i>Missing</i>	5	
Management of Stressful Work	145	49

Incident*

Not at all effectively	42	29
Somewhat effectively	31	22
Moderately effectively	36	25
Quite effectively	30	21
Extremely effectively	5	3
<i>Missing</i>	1	

Notes: * Frequencies and percentages only for participants who indicated that they had experienced a stressful work incident in the past three months ($n = 145$).

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Table 3. Means, standard deviations and range for continuous variables.

	Mean	(SD)	Range	Missing
Hours Worked/Week	46.22	(13.94)	6-85	1
Stressful Life Event Severity	7.62	(1.74)	1-10	5
Psychological Distress (K10)	19.39	(7.74)	10-43	
Supervised Employees	5.17	(8.76)	0-63	6

Note: K10 = Kessler Psychological Distress Scale

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Table 4. Coefficient and relative risk ratios (RRR) for predictors of reasons for engagement in the BIM intervention trial (N=289).

	B	SE	P Value	RRR	95%CI RRR
Personal Mental Health vs General Interest					
Intercept	-0.23	0.59	0.695		
Age 30-39	0.80	0.67	0.232	2.22	0.60-8.21
Age 40-49	0.52	0.61	0.396	1.67	0.51-5.51
Age 50-59	0.80	0.65	0.218	2.23	0.62-7.98
Age 60+	0.51	0.81	0.534	1.66	0.34-8.16
Gender (Female)	-0.24	0.37	0.516	0.78	0.38-1.63
Psychological Distress (K10)	0.12	0.03	0.000	1.13	1.07 - 1.19
Stressful Life Event (Yes)	0.38	0.44	0.387	1.46	0.62 - 3.43
Workplace Incident (Yes)	1.24	0.38	0.001	3.45	1.63 - 7.30
Mental Health Treatment (Yes)	0.02	0.38	0.963	1.02	0.48 - 2.16
Business Confidence (Low)	1.40	0.43	0.001	4.04	1.73 - 9.40
Employee Mental Health Management vs General Interest					
Intercept	-2.22	1.11	0.045		
Age 30-39	1.51	1.19	0.205	4.51	0.44-46.27
Age 40-49	1.55	1.12	0.165	4.73	0.53-42.36
Age 50-59	2.21	1.14	0.052	9.07	0.98-84.17
Age 60+	1.98	1.26	0.115	7.28	.62-85.80
Gender (Female)	0.03	0.46	0.945	1.03	0.42-2.55
Psychological Distress (K10)	-0.13	0.05	0.007	0.87	0.79 - 0.96
Stressful Life Event (Yes)	-0.17	0.50	0.740	0.85	0.31 - 2.27
Workplace Incident (Yes)	1.17	0.46	0.011	3.23	1.31 - 8.01
Mental Health Treatment (Yes)	-0.96	0.57	0.090	0.38	0.13 - 1.16
Business Confidence (Low)	-0.54	0.65	0.405	0.58	0.16 - 2.08
Proactive Management Strategy vs General Interest					
Intercept	-0.40	0.55	0.458		
Age 30-39	1.19	0.60	0.047	3.28	1.02-10.57
Age 40-49	0.89	0.54	0.101	2.43	0.84-7.04
Age 50-59	1.13	0.59	0.054	3.11	0.98-9.85
Age 60+	0.34	0.78	0.658	1.41	0.31-6.50
Gender (Female)	0.52	0.35	0.137	1.67	0.85-3.30
Psychological Distress (K10)	0.01	0.03	0.751	1.01	0.96 - 1.06
Stressful Life Event (Yes)	-0.39	0.36	0.283	0.68	0.33 - 1.38
Workplace Incident (Yes)	0.76	0.34	0.027	2.15	1.09 - 4.22
Mental Health Treatment (Yes)	-0.43	0.35	0.225	0.65	0.32 - 1.30
Business Confidence (Low)	-0.06	0.43	0.884	0.94	0.41 - 2.17

Notes: The baseline model consisted of age and gender. Each predictor was added to the baseline model separately. K10 = Kessler Psychological Distress Scale