

Brief Cognitive-behavioral Intervention for Teachers' Work-Related Stress: A Discussion Paper on Recruitment and Engagement Issues

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Abstract

This paper discussed the introduction of a brief cognitive-behavioral intervention for secondary school teachers in Hong Kong to manage their work-related stress. Core ideas of the program were introduced to a class of 99 secondary school teachers who attended a course for professional development. Upon receiving positive feedback, the full program was designed and pilot-tested. Since this was a preventive intervention taking the universal target approach, many targeted teachers might not perceive the need of managing stress. Therefore, the enrolment was slow and a number of barriers were encountered during the process of participants' recruitment. A variety of promotional efforts was used to attract interested parties. Although the program was promising that many teachers showed interest, not many of them were able to commit the time to participate. Finally, recruitment was done with the collaboration of school principals and the intervention was refined to a one-day program upon their requests. The issues of participant recruitment and engagement were discussed. The lessons learnt from the development and launching this short preventive intervention provide useful insights in Hong Kong for designing better program and more effect recruitment strategies in the future for this type of study and intervention.

Keywords: brief cognitive-behavioral intervention, teachers, work related stress

Introduction

Occupational stress among secondary school teachers was consistently reported

to cause or associated with physical and psychological illness (Schwab, Jackson, & Schuler, 1986; Tang, Au, Schwartz, & Schmitz, 2001). These health problems

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are both short-term and long-term, such as including burnout (Antoniou, Polychroni, & Vlachakis, 2006). Studies by various disciplines on work related stress were mostly conducted with nurses (Lee & Crockett, 1994; Tsai & Crockett, 1993), office workers (Maddi, Kahn, & Maddi, 1998; Shumazu, Kawakami, Irimajiri, Sakamoto, & Amano, 2005), and custodial staff (Thomason & Pond, 1995). However, there is a limited number of studies done on interventions for secondary teachers regarding their work related stress.

Different types of interventions have been reported in reducing work related stress, including individual-focused interventions such as cognitive-behavioral (CB) approaches (Roskies, 1987; Meichenbaum & Cameron, 1983) and relaxation techniques (Murphy, 1984), multimodal interventions (Golembiewski, Hilles, & Daly, 1987; Heaney, Price & Rafferty, 1995), and organization-focused interventions (Bond & Brunce, 2000). The individual-focused interventions are designed to improve relaxation techniques, cognitive coping skills, and work style and lifestyle modification skills. These skills and techniques have an important part to play in extending the individual's physical and psychological resources (van der Kink, Klink, Blonl, Schene, & van Dijk, 2001). CB intervention, as noted in a meta-analysis on interventions of work-related stress, was found to be the most effective method among all the different types of interventions (van der Kink et al., 2001). The meta-analysis found that the effect size of the CB interventions was inversely correlated with the number of CB sessions ($r = -.27, p < .05$) and thus suggested testing more short CB programs in future studies. Most CB programs consisted of 8 to 12 sessions (Compton, March, Brent, Albano, Weersing, & Curry, 2004; van der Kink et al., 2001) which demanded high commitment of the participants and had been a huge challenge in preventive intervention studies (Stick, Burton, Bearman, & Rohde, 2006).

Teachers' work stress was found to be high in Hong Kong and significantly associated with global symptoms of stress and depression (Leung, Mak, Chui, Chiang, & Lee, 2008). A short CB intervention was thus designed and pilot-tested with secondary school teachers. The intervention was developed based on an CB program for depression tested in Hong Kong (Wong, 2007). However, as noted in many previous intervention studies (Dumka, Garza, Roosa, & Stoerzinger, 1997; Heinsrichs, 2006), recruitment and retention are major challenges in preventive programs. Many intervention studies acknowledged recruitment and retention of participants were major challenges that required extra effort and special strategies to ensure success of the studies (Heinrichs, 2006; Heinrichs, Bertram, Kuschel, & Hahlweg, 2005). Preventive research has even greater difficulties as recruitment rate seems to be particularly low (Boles, Getchell, Feldman, McBride, & Hart, 2000; Heinrichs et al., 2005; Kidd, Parshall, Wojcik, & Struttman, 2004). This paper introduced a brief CB intervention which was designed for stress management of secondary school teachers in Hong Kong, and discussed the related participant recruitment and engagement issues. Understanding the difficulties in recruiting and engaging subjects is important to develop more effective strategies for promoting participation and enhancing the validity of study outcomes.

Key Components of the Cognitive-Behavioral Intervention

According to Beck (2005), there are three key components in CB Intervention. Dysfunctional thought analysis is a process to recognize the automatic thoughts as well as emotional, behavioral and physiological responses to the stress. By reviewing a past event or stressful work-related situation, the participants were facilitated to recognize their own responses. They would start to identify dysfunctional feelings that were aroused by

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irrational thoughts and beliefs. On the other hand, cognitive restructuring is a CB technique used to reconstruct the irrational beliefs to rational ones and thus to convert the negative feelings that stemmed from the irrational beliefs to positive feelings. Last but not least, relaxation exercise is useful to manage stress-induced physiological responses and to reduce the level of arousal to stress. Progressive relaxation exercises and guided imagery were demonstrated and practiced with participants.

Group discussion and assigned practice on cognitive changes were two other major strategies in the program for participants to develop rational thinking skills. Through group discussion, the participants were encouraged to look for evidence in support of unreasonable and unhelpful beliefs. The identified unhelpful beliefs were guided to be transformed into more adaptive and helpful beliefs. The participants were provided opportunities to review their own personal sources of stress, beliefs and emotions toward stress, and need for changes of behaviors in coping with the stress. Self assessment tools were provided to facilitate reflection. Back up referral to appropriate mental health services was prepared for participants who expressed suicidal ideation. However, no such need was found among the participants.

Development of the Mode of Intervention Delivery

Initial Testing of Program Acceptability

The mode of delivering this brief CB program was tested out through three stages. The first stage was a trial run of a half-day workshop to test out the acceptability of stress management workshop for teachers. A survey on occupational stress as well as symptoms of stress, anxiety and depression was performed with 99 secondary school teachers who attended a course for professional development in a university. Teachers were invited to choose

either to attend a 4-hour CB program or an on-line listserv program to manage their work stress. Among them, 23 chose to attend the 4-hour workshop with the CB approach for stress management. The core components of CB approach (Beck, 2005) was introduced in the workshop, which included the ABC Model of Stress (antecedent, beliefs and consequences). Small group discussion was conducted on the issues regarding sources of stress and potential application of the ABC Model.

The program was well-received by the participants. Most of them (95.5%) rated the overall effectiveness of the program as satisfactory or good in helping them to manage work-related stress. Over 40% of participants ($n = 9$) rated 75% to 100% of the materials discussed in the program were useful. Sixty-four percent ($n = 14$) agreed or strongly agreed that the program enhanced their confidence in managing work-related stress. Majority of them (87%, $n = 19$) agreed or strongly agreed that they learnt to think more rationally as a result of participating in the program. Sixty-eight percent ($n = 15$) agreed that they were stimulated to explore new ways of managing work-related stress and the same percentage of participants were planning to use the new strategies to manage work-related stress.

Market Receptiveness of the Brief CB Program

With the positive results received from stage one and participants requested of more time for practicing the cognitive and behavioral activities, a longer program was developed in the second stage and tested in a secondary school with 14 participants (the program was extended to a 3-hour weekly intervention for three weeks at this stage). With this newer program, a process evaluation was performed in order to refine the content. Some participants reported difficulties to attend the sessions which were scheduled right after school as

they often need to stay after class to answer students' enquires. Some teachers did not stay till the end of session(s) due to other work commitments. After careful discussion with the participants, other potential participants and school principals, an alternative was developed to make the intervention a one-day program. A range of promotion activities were then carried out to investigate the "market receptiveness" of this new program. For instance, details of the program were communicated with the public in a Press Conference, in which we also reported the initial findings of survey conducted in the first stage. The new one-day program was conducted as a pilot with two groups of 20 teachers. Subsequently at the second stage, new participants were further recruited by referrals through friends, direct invitation, and open publicity in the website and newsletters of the Hong Kong Professional Teacher Association to all the 526 secondary schools in Hong Kong. Finally, in the third stage, the one-day program was launched and conducted in three secondary schools with a total of 161 participants. Five school principals had actually called to enquire about conducting the program for their schools. However, only three were able to be matched the time available for the facilitators.

Participants and Procedures of the Program

At the third stage, the 161 secondary school teachers were recruited from one public school in Kowloon, and one public and one private from the New Territories. Of the 108 participants who completed the baseline questionnaires, there were 49 males (45.4%) and 59 females (54.6%). Of these participants, 27 (25.5%) ranged from 36 years old to 40 years old, and 43 (40.6%) ranged from 21 years old to 35 years old. Forty-six (43.4%) were married and 56 (52.8%) were single. Twenty-eight of these participants (26.2%) had a monthly household income ranging from HK\$20,001 to HK\$30,000; twenty of them

(18.7%) had a monthly household income ranging from HK\$30,001 to HK\$40,001, and another twenty of them (18.7%) had a monthly household income ranging from HK\$40,001 to HK\$50,000. A large majority of the participants had long-term employments ($n = 84$, 77.8%).

All of the participants attended the program as part of their professional development required by their schools. One hundred teachers completed the baseline questionnaires one week before attending the program, and then one week after completion of the program. Sixty-one teachers acted as wait-listed control group to complete the same set of questionnaires twice with 6 weeks apart. They took the program after the second data collection.

Problematic and Inconsistent Responses

Although all teachers attended the program, only 108 participants (50 of intervention group, 58 of control group) returned the completed questionnaires at baseline. Many ($n = 50$) in the intervention group and three in the control group did not complete the demographic data sheet. At the time of second data collection after the program, 70 teachers from the intervention group and 58 from the wait-listed control group returned the completed questions. In other words, there are 20 more completed questionnaires returned from the intervention group at the point of post-intervention time than at baseline. However, among the completed questionnaires from the intervention group, 18 (36%) baseline and 42 (60%) post-intervention were found to have problematic or inconsistent responses. Specific patterns were noted from these responses. They were either in "S" or transposed "V" shape for the responses of scales that the related participants did, or having the same answers to all questions.

Recruitment and Participation Issues

Tight and busy working schedule was common among secondary school teachers in Hong Kong. Identifying a suitable time to offer the one-day program was anticipated as difficult, and hence the promotion was firstly performed by the end of school term in June, hoping to attract more teachers to join right after the examination period, or during the early time of summer break. However, the recruitment through open publicity was slow even after all the effort of sending faxes to all schools and mailing pamphlets to all members of the teacher association. Enrolment had a slight rise after promotion in the Press Conference. Nevertheless, the program was offered free of charge and there was no penalty for a withdrawal or absence. Many registered participants (37%) did not turn up at the second stage when recruitment was done with open publicity targeted at individuals rather than at schools.

After the Press Conference, a number of calls were received from school principals enquiring conduction of the program as part of the teachers' professional development activities in each school. The number of participants was then not an issue but some participants appeared to be not highly motivated or felt reluctant to take part in the program. Some teachers might not perceive the need to learn new skills to manage stress (or they did not even have any concern of their stress level). Nevertheless, they were still demanded to attend the program with the good will of the program being a professional development activity. Their reluctant attendance to the program appeared to have paradoxically affected the group engagement and dynamics at a certain degree, though some teachers participated very actively. This problem was common among universal prevention where participants have lower motivation than those in the indicative prevention (Abascal, Brown, Winzelberg, Dev,

& Taylor, 2004; Heinrichs et al., 2005; Gross & Fogg, 2004). For indicative prevention, such as CBT programs for depression, potential participants were screened for high level of depressive symptoms and openness of receiving the program. The program was more readily accepted by those who believed the program was a possible solution to their problems, or at least they were willing to try it out. For universal prevention, many participants might not see the need of such intervention, and that it affected the receptiveness and satisfaction about the program.

For the same reasons, active participation in the baseline survey and the post-intervention survey of this study was affected. Many teachers did not complete the baseline survey and 36% and 60% of them did not find to have taken the respective baseline and post-intervention survey seriously. The responses they provided in the returned surveys were clearly inconsistent or problematic, though they were reminded of voluntary participation.

This one-day program was draining for participated teachers because the CB approach required them to carry out heavy intellectual activities. With the reluctant feelings of joining the program, and when the participants failed to follow those activities, it is reasonable to believe that they could not appreciate the usefulness of the program, and would not understand the need to practise the application of CB model to manage their work related stress. Consequently, as shown in the evaluation survey, some participants expressed that the model was too easy, or unrealistic to manage stress. Furthermore, the demand and their reluctance to join this program might have actually induced some stress to them.

Since the CB program demanded quite a lot of cognitive activities, more time was needed for participants to understand and consolidate the concepts and skills. When

the participants were asked to use a personal scenario to practice application, some of them found it too hard to identify the cognitive responses out of the scenarios. Participation was also affected by the arrangement of sessions and grouping. For the program which was revised to one day, the participants were more involved and energetic in the morning but appeared to be tired after lunch. This might have been contributed by the heavy mental demand required for the cognitive exercises. It was also a challenge to engage participants in the discussion particularly in identifying patterns of irrational thoughts and the underlining core belief. Furthermore, one of the key components of CB was assignment (homework). The one-day program did not incorporate time for participants to consolidate what they have learnt through the homework. Participants did not have much chance to apply the CB skills over the week before the activities moved onto a deeper level.

For the grouping, many teachers came from the same school in each day program, and only one facilitator was available to supervise two groups for discussion. It was even harder to sustain participants' involvement when the facilitators had to manage more than one group. Group interactions reduced particularly in those groups with the reluctant participants. When participants were asked to write their own stressful scenarios and to identify the related responses, some of the participants did not write anything. This might also be related to a political consideration of the teachers because all participants in the group were from the same school, with a variety of positions and responsibilities in the school, ranging from the most junior teachers to the principals. Open communication could be difficult for them in such a situation. The qualitative feedback actually confirmed such concern regarding the limited grouping dynamics, which led to difficulties in expressing opinions (due to the differences between the school's perspectives and personal views). Some teachers suggested

to targeting at junior teachers or those with less teaching experience as participants, because they were believed to have higher stress and more problems in managing students.

In conclusion, the fact that participants were required to attend the CB program as a mandatory professional development activity in this study, the issues of group dynamics and set-up, and the ever heavy workload of teachers appeared to have been contributed to the problems of recruitment, engagement and inconsistent responses. The results of this study might not provide a full quantitative evaluation of the effectiveness for the one-day program involved. However, the lessons learnt regarding the special situation of this group with well-recognized high work related stress can provide us good and useful insights to design better program and arrange more engaging setting of study in the future.

摘要

為香港中學教師設計的簡短認知行為減壓計劃：參加者的招募及投入問題

本文討論一項為協助香港中學教師處理工作壓力而設計的認知行為減壓計劃。此計劃的核心概念曾在一個中學教師專業發展課程中向99位教師作出介紹。參加者對此計劃表示歡迎。而計劃的設計就教師其後所提出的建議而修改並試行。由於這是一個預防性的計劃，對象為一般教師而他們未必明顯地受到工作壓力困擾，因此在招募參加者的過程中遇到一定的困難。研究人員曾用各種各樣的宣傳方法來吸引參加者。雖然不少教師對計劃曾表示感興趣，但沒有太多人能付出時間參與。最後，在數位校長的協作下，成功完成招募，而計劃亦應要求濃縮為一天。本文討論有關這計劃的招募及參與者投入的問題。今次發展及推行這個精簡的預防性計劃的經驗，

可作為日後香港同類研究在內容設計及招募策略方面的實用參考。

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