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IT Based Approach for Non-Clinical Depressive Workers in Japan

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Abstract

This paper introduces an innovative approach to cope with the risk of non-clinical depression in the workplace. Non-clinical depression is not an official medical subject, but itsestimated impact on workplace productivity is assumed to be substantial.Non-clinical depression is used in this paper to describe a state where a person feels neither ill nor healthy.Human errors, staff turnover, motivation, engagement, and deterioration of wellbeing among employees are all influenced by the incidence of non-clinical depression in the workplaces (Watanabe 2011).

In recent years, non-clinical depressionhas become more common in Japanese workplaces (Watanabe et al. 2008).But it has not yet been clearly differentiated from clinical depression among medical doctorsand clinical psychologists. Because of such ambiguous classification,non-clinical depressionhas not beenadequately addressedby occupational studies in themanagement study (Watanabe 2013). Few risk management researches have focused on reducing the effect of this type of depression on workplace productivity (Watanabe 2005).

There has been noprevious systematic study and case studyexamining the use of IT related services for non-clinical depression in place of conventional medical tools and therapies (So et al. 2013).

The main research concept is to verify the use of CCBT expertiseand technologiesfrom IT based services to cope with issues with workplace non-clinical depression.

This paper concludes thatIT service based CCBT methodology can be used effectively to assistemployees with non-clinical depression symptoms.This concept is also backed up with a case study analysis which showed a clear effectiveness with expected results. It is expected that corporate management shouldfurther carry out such IT based services to protect productivity deterioration at their workplaces.

Key words: ITbased service, CCBT,non-clinical depression, risk management, productivity,

1. Introduction

The risk of depression among employees is a problem of the highest priority for organizations in Japan and is a key concern of management. In recent years, epidemiological studies in Europe and America have indicated that this problem should be targeted for workplace interventions, such as risk management, particularly because individuals with mild depression experience an increased risk of more severe depression in the future (Cuijpers et al. 2004b).

According to a report by the Japanese Ministry of Health, Labour and Welfare, (Report on suicide and financial impact by depression 2010: 26, 539),people aged 15–69 years committed suicide in 2009, with a total loss of future life income of 1.9 trillion yen. In total, the economic loss caused by depression and suicide in Japan in just 2009 was about 2.7 trillion yen. Aside from this loss, GDP (gross domestic product) in 2010 fell by 1,700 billion yen, a decrease that is expected to continue.

According to a Ministry of Health, Labour and Welfare policy report in Japan, the number of patients with mood disorders such as depression was 433,000 in 1996; by 2008, this figure increased 2.4 times to 1,041,000.

InJapan, Employee Assistance Programs (EAPs) have been widely used to identify and help to address depression in the workplace; these programs are considered effective to a certain extent, but there is little evidence for the effectiveness of risk management in addressingnon-clinical depression.

Many individuals experience mild depression; if untreated, mild depression can be difficult to recover from and may lead to a decline in productivity(Akhondzadeh et al 2003). Mild depression is difficult to treat medically and does not always respond to medication.

As individuals who have recovered from depression may experience reoccurrence of symptoms(Aslam et al. 2011), such approaches could help to address this problem and thus mitigate adverse effects to productivity and reduce the burden of medical expenses.

The way that organizations handle the problem of depression is still something of a “black box.” From a national perspective, an innovative approach to mental health care in the workplace would benefit every industry in Japan.

2. IT based services and its potential role on the risk management

There is a large potential new service field at IT industriesfor the non clinical disorder relating issues in the work place.For example, there is a substantial potential inIT industry in Japan that could provide mental health care service for (non-clinical) depression related disorders. It must be also necessary to introduce innovative risk management perspectivesin management education that address mental health issues in the organizational behavior.
Some studies indicate that self-help methods with IT technology and based on CBT: Cognitive Behavioral Therapy are effective for depression (Cuijpers et al 2007a).

Cognitive-Behavioral Therapy (CBT) is a well-established, highly effective with real world evidences, and lasting therapy treatment methodology. It focuses on understanding, identifying and changing way of recognition and thinking and behavior patterns along with counseling sessions. Benefits in changes are usually observed in four to sixteen weeks, depending on the individual and in-charged therapist pair.

In this therapy the patient needs to actively take his or her own recovery paths, with a sense of control.These learned skillswill bea good tool set to prevent depression throughout his/her ownlife.

CBT typically utilizeschematic writingsabout his/her facing issues, and need to keepjournal or diaryrecords periodically with accordance to instructions. So patients are expected to complete patterned homework assignments in which the psychological treatment procedures are to be practiced.

Such schematic and logical aspects in CBTprocedures have good chemistry with logic based IT technology and internet basedinteractive capability.
Such IT (Computer) based serviceswhich has facilitated the development ofCBT: Cognitive Behavioral Therapy is named CCBT.Several meta-analyses have found that this CCBT method is beneficial for depression (So et al. 2013). There is evidence that CCBT can treat other disorders such as interpersonal fear and social anxiety, obsessive-compulsive disorder, post-traumatic stress, panic disorder, bulimia, and insomnia, and is not limited to treating mental illnesses.

The NICE guidelines recommend CCBT as a first-line treatment for mild depression. In the United Kingdom, CCBT treatment is prescribed by National Health Service family doctors and the applicant can

follow the program by themselves or with the support of a therapist.

One of the most advanced computer self-study therapy services for depression was inventedin 2003by Life Balance Management Inc., a private HR consulting firm established by the writer. This CCBT and high-quality Social Networking Service combined program was named as "Mental Toughness Diary"which was developed by this firmalso in 2005.

In the same year, at the conference of the Japanese Mind and Body Medical Society, the results with a positive effect on employee mood after participation in this program was revealed to the medical and psychology professionals for the first time in Japan.

Other computerized self-help systems have been developedfor depression treatment and have had positive effects. For example, Merry et al. (2012) developed a CCBT intervention in the form of a role-playing fantasy game with IT expertise. Participants were adolescents with depressive symptoms. IT based Self-help materials have also been used to treat post-traumatic stress disorder in US war veterans.
A meta-analysis by Parsons and Rizzo (2008) examined the effectiveness of virtual reality-based exposure therapy on anxiety disorders and suggested that the technique could be effective in treating anxiety.
Meta-analytic studies suggest that interactive (Palmqvist et al. 2007) and social network-related (Wantland et al. 2004) CCBT programs are effective in treating depression. CCBT programs that use animations and videos are most effective (Gerhards et al. 2011), as are programs that feature role-playing games (e.g., Merry et al. 2012).

In the United States, virtual reality-based CCBT has been used as an intervention for post-traumatic stress disorder in war veterans who may have experienced injury or been involved in terrorism situations (McLay et al. 2011). The introduction of personal risk profiles and programs tailored to individual needs will also help to increase the effectiveness of CCBT (Perez-Diaz de Cerio et al. 2011). In addition, improvements in the use of CCBT applications on portable devices, such as smart phones (e.g., the iPhone) are indispensable (Wodarski and Frimpong 2013).

3. Case study at TIS (Toyo Information Systems) Consulting Inc.

The time range of this casewas during the year period of 2003-2005. TIS (Toyo Information Systems)

Consulting Inc., which was located in Tokyo, had suffered from high turnover and sick leaves among the employees at the time point of 2003. Most drop-out cases were linked with (non-clinical)depression by heavy over-time work and workplace human relationship stresses among employees. However, there is little knowledge and expertise among HR managers of this company. Thus the writer was appointed as the project consultant to this company to controlrisk in the employee depression. After examining alternative methodologies, the writer decided to enroll CCBT and Computerized organizational stress monitor system (which was named MTOP: Mental Toughness Orientation Program) with quarterly check-up interval. Organizational stress analysis program, which name was HIS and IT based, was also conducted in the project.

These forward actions were conducted for two year span: 2003-05under the writer's supervision.
As the result, the high turnover (resignation from the company) dropped sharply during 2004 and 2005.Actual verified number of turnover due to employee depression in 2003 was three out of total employee number size of two hundred and twenty. The turnover was increased to seven in 2004, but after deployment of IT based CCBT program, the turnover was turned out to zero in 2006.

This case was press released to the publicby Life Balance Management Inc. in 2006. Du to this apparent success, this case was introduced in the national TV program (NHK) in Nov. 30th, 2006.

The writer was the CEO of this consulting firmat that time and supervised this IT service enrollment project. This case showed typicaleffective and innovative methodology forthe work place (non-clinical) depression in Japan.

4. Common problems

There are common problems that characterize the IT based services that provide mental health services for non-clinical depression.

The first problem is that more research evidence is needed in Japan.There are evidences from IT based servicesof the feasibility of offering interventions for non-clinical depression in the industrial sectors as shown in the case of TIS Consulting Inc. Meta-analytic studies of RCT: Randomized Controlled Trial are now considered very important in determining the effectiveness of medical treatments. However, there have been fewer RCTin Japan than in other developed countries. Most of the RCTs that are referred in this

paper were performed outside of Japan.

The second problem is ensuring that service users are given correct, unbiased information about the effectiveness of mental health interventions. There are now meta-analytic studies for IT based self-help services, but articles summarizing the evidence arewritten in English using pure technical terms. This means that they are not very accessible to mostresearchers in Japan. What is needed are regular investigation and clear, accessible reporting and case studies by research professionals that are objective from a domestic and international perspective.

The third problem is how to improve in the screening of people from high-risk psychiatric problems and the non-clinical depression at workplaces. Psychological education and deployment IT based services at workplaces may reduce unnecessary hospital consultations with inappropriate prescriptions.

However, in this point of time, we need to improve the accuracy in the screening expertise in the depression category.

The last problem is the simultaneous demand for mild interventions for non-clinical depressionand the difficultyin meeting the laws and regulations(such as the Medical Act or the Drugs, Cosmetics and Medical Instruments Act).Many companies market "stress relief" psychological treatments for healthy people but rarely include non-clinical depression in their marketing efforts. This is because of a risk aversion to meeting legal requirements.

5. Conclusion

There is a need for greater choice of treatments for non-clinical depression, and the development of more IT based advanced services will benefit the national economy and risk management in each workplace as well asfor the individual well-being.
The development of attractive, entertaining programs, based on academic evidence, will help to promote the use of self-help IT based tools for non-clinical depression and reduce dropout rates at workplaces. These programs could beinnovative management tool to improve risk management forworkplace productivity. Unfortunately, in this point, the medical industry and academic psychological professionals has fallen behind with research and development of such IT based tools in this area.

Current evidence suggests that the most effective method for reducing depression and increasing quality of life is CBT (Cuijpers et al. 2007b); further developments of this field with

IT based should be a high priority.
The problems that mental illness creates in the workplace, such as lack of engagement, drop-out and absence from work, demand more innovative risk management policies to halt the decline in productivity. Conventional EAP service concept should also be incorporated to this concept in the future. Since this is relativelynew concept for workplace risk management field, more work place case evidences with statistical and real-world evidenceare needed in the form of follow-up studies.

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