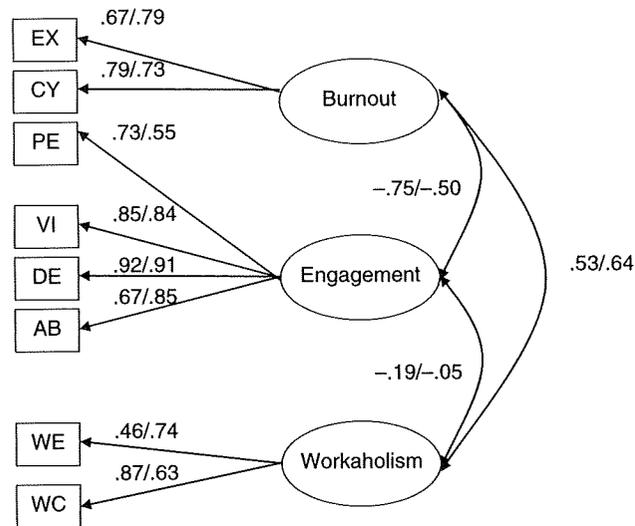


Figure 1
The Relationship Between Workaholism, Burnout, and Work Engagement (M2-Revised 3; Dutch $N = 1,406$ /Japanese $N = 2,024$)



Note: EX = exhaustion; CY = cynicism; PE = professional efficacy; VI = vigor; DE = dedication; AB = absorption; WE = working excessively; WC = working compulsively.

a median split was used to discriminate between those who scored high and low on WE and WC, respectively. Combining both dichotomous dimensions yields four groups: (1) Workaholics—high on both WE and WC; (2) Hard workers—high on WE and low on WC; (3) Compulsive workers—low on WE and high on WC; (4) Relaxed workers—low on both WE and WC. By taking the workaholics as a reference group, relative risks (odds ratios) of burnout and engagement were computed for the other three groups.¹ High scores on burnout and engagement were defined as those that are included in the top third of the scoring distribution.

As can be seen from Table 6, compared to Dutch and Japanese workaholics, relaxed workers, hard workers, and compulsive workers are significantly less likely to experience severe exhaustion and cynicism (except for cynicism among Dutch compulsive workers and Japanese relaxed workers). Results for the third dimension of burnout—professional efficacy—are less clear: Japanese workaholics do not differ from the three other groups, whereas Dutch hard workers feel less efficacious, and Dutch compulsive

Table 6
ORs and 95% CI of Burnout and Engagement
for “Relaxed Workers,” “Hard Workers,” “Compulsive
Workers,” and “Workaholics”

	Netherlands			Japan		
	<i>N</i>	OR	95% CI	<i>N</i>	OR	95% CI
Exhaustion						
Relaxed workers	213	0.21***	0.13-0.33	635	0.42***	0.07-0.20
Hard workers	236	0.25***	0.17-0.39	356	0.27***	0.15-0.48
Compulsive workers	211	0.56***	0.40-0.80	350	0.41**	0.23-0.76
Workaholics	746	reference		684	reference	
Cynicism						
Relaxed workers	213	0.35***	0.25-0.52	635	0.27	0.21-0.35
Hard workers	236	0.43***	0.30-0.61	356	0.44***	0.33-0.58
Compulsive workers	211	1.14	0.84-1.56	350	0.63**	0.47-0.84
Workaholics	746	reference		684	reference	
Professional efficacy						
Relaxed workers	213	0.75	0.53-1.05	635	1.19	0.82-1.71
Hard workers	236	0.43***	0.30-0.63	356	0.77	0.52-1.13
Compulsive workers	211	2.34***	1.72-3.19	350	1.56	0.96-2.49
Workaholics	746	reference		683	reference	
Vigor						
Relaxed workers	2,135	1.42***	1.04-1.61	1,069	0.68*	0.50-0.95
Hard workers	1,303	1.59***	1.37-1.84	543	0.66*	0.44-1.00
Compulsive workers	1,276	1.26***	1.08-1.46	586	1.44*	1.04-1.99
Workaholics	2,787	reference		1,033	reference	
Dedication						
Relaxed workers	2,135	1.59***	1.40-1.81	1,069	0.48***	0.34-0.68
Hard workers	1,303	1.55***	1.34-1.80	543	0.58**	0.38-0.87
Compulsive workers	1,276	1.30***	1.10-1.51	586	1.01	0.78-1.52
Workaholics	2,787	reference		1,033	reference	
Absorption						
Relaxed workers	2,130	1.22***	1.06-1.40	1,076	0.68	0.42-1.11
Hard workers	1,303	1.23**	1.05-1.44	543	0.44*	0.22-0.89
Compulsive workers	1,273	1.43*	1.22-1.76	585	1.22	0.76-1.99
Workaholics	2,786	reference		1,031	reference	

Note: OR = odds ratio; CI = confidence intervals.

* $p < .05$. ** $p < .01$. *** $p < .001$.

workers feel more efficacious than Dutch workaholics. Hence, Hypothesis 3a was fully supported in both countries for exhaustion, mostly supported for cynicism, but *not* for personal efficacy.

As expected, Dutch workaholics have lower relative risks for engagement, meaning that compared to workaholics, all other three groups feel more engaged. Consequently, Hypothesis 3b is confirmed for the Dutch sample. However, the picture is rather different in the Japanese sample, only the compulsive workers feel significantly more vigorous than the workaholics. However, compared to workaholics, Japanese relaxed workers and hard workers feel *less* vigorous and dedicated, and hard workers also feel less absorbed. So with the exception vigor among compulsive workers, Hypothesis 3b is not confirmed in the Japanese sample. Taken together, our results suggest that—generally speaking—the combination of working excessively and working compulsively is associated with higher levels of burnout (notably exhaustion and cynicism) and lower levels of engagement, although the latter was almost exclusively observed in the Dutch sample.

Discussion

The current study introduced a brief self-report questionnaire to assess workaholism in different cultural contexts. The main results are summarized and discussed below.

Scale construction. Following our definition of workaholism as the tendency to work excessively hard in a compulsive fashion, our questionnaire includes two scales: WE and WC. Using two existing scales as a point of departure, and after selection of items based on their content and on their factor-loadings, two 5-item WE and WC scales emerged. This two-factor structure was successfully cross-validated in two independent Dutch and Japanese samples, albeit that it was only partly invariant across both countries. This means that the *structure* of workaholism is similar in the Dutch and the Japanese samples (factorial validity), but that the *sizes* of most estimates, including the correlations between WE and WC, differ between countries. This poor invariance might reflect cultural bias as well as sample bias—or both. Sample bias is likely to play a role because the composition of the Dutch and the Japanese sample differs, for instance, as far as employees' occupational background is concerned. As can be expected from two scales that refer to a common underlying construct they share a reasonable amount of their variance (i.e., between 25% and 35%). By way of comparison, this proportion is higher than for the three components of burnout (i.e., between 10% and 25%; Schaufeli & Enzmann, 1998) but lower than

for the three components of work engagement (i.e., about 45%; Schaufeli & Salanova, 2007a).

Subsequent reliability analysis revealed that both workaholism scales have sufficient internal consistency in both countries. Only in the Japanese sample, WC showed a slightly lower value ($\alpha = .68$) as compared to the criterion of .70 proposed by Nunnally and Bernstein (1994). Adding an overlapping item that was removed previously (“I seem to have an inner compulsion to work hard, a feeling that it’s something I have to do whether I want to or not”) increased the value of α beyond its critical level ($\alpha = .73$). However, we refrained from doing so because including items with overlapping content is an artificial way to increase internal consistency (Streiner, 2003). Instead, we decided to use the five-item scale, despite its somewhat lower value of Cronbach’s alpha in the Japanese sample. The main reason being that the criterion of .70 is an arbitrary value that is not universally accepted. For instance, De Vellis (2003) in his handbook on scale construction, proposed .65 as a minimum threshold for an acceptable coefficient α . As an example of the arbitrariness of his criterion, Nunnally (1978) mentioned that α s ranging from .50 to .60 would be acceptable, but in the second edition of his book he suggests a value .70—without further justification (Nunnally, 1978). Moreover, the minimally required degree of reliability is a function of the research purpose; for individual-level, diagnostic research α should be much higher than for the basic, group-level research reported in our study (Peterson, 1994).

In conclusion, the first aim of the study—to construct a two-dimensional brief self-report instrument to assess workaholism—was accomplished. The instrument is dubbed Dutch Workaholism Scale (DUWAS).

Convergent validity (Hypothesis 1). In accordance of our Hypothesis 1a, both workaholism dimensions were significantly correlated with two indicators of excess working time: overwork (i.e., taking work home and working in weekends) and proportion of overtime (i.e., actual working time relative to official working time). Moreover, and also in accordance of our Hypothesis 1b, correlations of these two indices with WE were significantly higher than with WC. This agrees with numerous studies that showed that workaholics spend much of their time working (e.g., Brett & Stroh, 2003; Buelens & Poelmans, 2004; Snir & Zohar, 2008).

Discriminant validity (Hypothesis 2). Confirmatory factor analyses revealed in both national samples that instead of collapsing into one general well-being factor, workaholism, work engagement, and burnout can be distinguished as

separate, yet correlated, constructs. Although our results generally support Hypothesis 2, the relationships between the constituting scales of the three constructs were slightly different from what was expected on theoretical grounds. As in some other studies (e.g., Schaufeli, Salanova, et al., 2002; Schaufeli & Bakker, 2004), instead of loading on burnout, professional efficacy loaded on work engagement. Recently, it was shown that most likely this results from the fact that positively phrased efficacy items are reversed to tap inefficacy (Schaufeli & Salanova, 2007b). Hence, it can be speculated that when negatively phrased inefficacy items had been included, the inefficacy scale would have loaded on the latent burnout factor and *not* on the work engagement factor. Subsequent analyses of invariance revealed that the *structure* of the relationships between workaholism, work engagement, and burnout was similar across both national samples, whereas the sizes of the factor loadings and the correlations differed significantly. Again, cultural bias or sampling bias—or both—may be responsible for this result.

The combination of working excessively and working compulsively (Hypothesis 3). We defined workaholism as the tendency to work excessively and compulsively, which implies that the *combination* of high scores on both WE and WC typifies workaholics. Indeed, Dutch and Japanese employees who score high on both WE and WC (workaholics) have significantly higher scores on burnout (exhaustion and cynicism) than relaxed workers, who scored low on both workaholism scales, and also than hard workers and compulsive workers, who scored high only on WE and WC, respectively. This confirms Hypothesis 3a which, stated that particularly the combination of high scores on both WE and WC is linked to burnout. Contrary to expectations, except for Dutch compulsive workers, who felt more efficacious and Dutch hard workers who felt less efficacious than Dutch workaholics, no significant differences were found regarding the third dimension of burnout. This might be explained by the fact that this dimension plays a rather distinct role, as compared to exhaustion and cynicism that are considered to be the core of burnout (Schaufeli & Salanova, 2007b). For instance, efficacy correlates relatively low with exhaustion and cynicism, and compared to exhaustion and cynicism, lack of efficacy shows a different pattern of correlations with various job characteristics (for a meta-analysis, see Lee & Ashforth, 1996). Also, instead of a genuine burnout dimension, lack of efficacy has been considered similar to a personality characteristic (Shirom, 2003). So taken together, empirical as well as conceptual evidence documents the extraordinary role of efficacy beliefs in burnout compared to both other core dimensions.

In a similar vein, the *combination* of working excessively and working compulsively is associated with low levels of work engagement. That is, compared with all three other groups, workaholics score significantly lower on vigor, dedication, and absorption, at least as far as the Dutch sample is concerned; thus confirming Hypothesis 3 in that sample. In conclusion, our results suggest that the combination of working hard and working compulsively is most detrimental for employee well-being in terms of burnout (most notably exhaustion and cynicism) and low engagement (only in the Dutch sample).

However, contrary to expectations, in the Japanese sample, the odds ratios of vigor (relaxed workers and hard workers), dedication (relaxed workers and hard workers) and absorption (hard workers) are significantly *lower* compared to the reference group of workaholics. Only for vigor in the compulsive group, the odds ratio is in the expected direction. What could be the explanation for this finding that, overall, Japanese workaholics seem to experience relatively *high* levels of work engagement? It can be speculated that Japanese workaholics are more inclined to respond favorably to items tapping work engagement for reasons that have to do with Japanese culture in which social relationships (at work) are interdependent (Markus & Kitayama, 1991) and strongly hierarchical (Matsumoto, Kudoh, & Takeuchi, 1996). In an interdependent, collective culture like Japan, social harmony plays a key role. This means that, for instance, individual well-being is subordinate to the well-being of the group (Iwata, Roberts, & Kawakami, 1995). Hence, if a team-member faces high job demands, others will assist voluntarily. Furthermore, a strong hierarchical (vertical) culture requires Japanese employees to respect their senior superiors. This means that, for instance, younger, subordinate employees will not leave before their older superior has left work late at night. They feel social and psychological pressures to stay until their boss leaves office, pretending to be busy with their own work. So it seems that, more than in Dutch society, in Japanese society workaholism is valued—the driven, hard working, and loyal employee is cultivated as a role model.

Limitations and Suggestions for Further Research

All data are based on self-reports which means that the magnitudes of the effects that we reported may have been biased due to common method variance or the wish to answer consistently (Conway, 2002). Unfortunately, we cannot test the strength of this type of variance, but recently Spector (2006) has argued that common method variance is not that troublesome as one might expect in studies as the current one. He showed convincingly that

potentially biasing variables such as social desirability, negative affectivity, and acquiescence (the tendency to agree with items independent of their content) do not systematically inflate correlations between self-reported variables. Moreover, if common method variance would have led to inflated correlations, one would expect relatively high associations among all pairs of variables. However, inspection of Table 1 reveals that this condition is not satisfied, with 20% of the correlations being lower than .10. In a similar vein, our factor analyses of the subscales of burnout, engagement, and workaholism revealed that instead of one, three dimensions were needed to account for the associations among these scales (see Figure 1). This result strongly suggests that monomethod bias does not play a major role in our data (cf. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Another limitation is that both samples are neither nationally representative, nor comparable as far as occupational groups are concerned. The purpose of the current study—the development and validation of a questionnaire—does not require similar and comparable national samples. However, the fact that the composition of the Dutch and Japanese samples differs markedly, for instance as far as occupational groups are concerned, precludes a comparison of mean values of workaholism (WE and WC) and of proportions of workaholics, relaxed workers, hard workers, and compulsive workers across countries. Future research that includes carefully selected and comparable (representative) national samples should uncover to what extent levels of workaholism (WE and WC) and the prevalence of workaholism differs between countries.

In the current study, we used a statistical criterion (median split) to discriminate between those who scored high and low on WE and WC. So in fact our classification of four types of employees is based on an arbitrary statistical norm. Future research should establish cut-off points for WE and WC that are based on independent, external criteria such as peer ratings from colleagues, friends, or spouse, or assessment by professionals (cf. Aziz & Zickar, 2006).

A logical next step in future research is to examine the construct validity of the WE and WC scales in greater detail. For instance, do both dimensions of workaholism have similar antecedents and consequences? It can be assumed that scores on WE are positively related to (objective) indicators of working time, such as number of hours spent at work, allocating leisure time to work, and thinking about work when not working. This can be studied by using Ecological Momentary Assessment (Stone & Shiffman, 1994), a method that has only occasionally applied to study workaholism (Snir & Zohar, 2008). However, WC is expected to be related to personality factors such as

perfectionism, consciousness, obstinacy, rigidity, orderliness, dominance, and to obsessive thinking and ruminating (Killinger, 2006; Mudrack, 2004).

Finally, the DUWAS opens to possibility of investigating the underlying psychological mechanisms of workaholism and of differentiating it from the process that drives work engagement. For instance, workaholics may be motivated by the pursuit of performance goals that are competitive, other referenced, and extrinsic, whereas engaged workers are motivated by mastery goals that are self-enhancing, self-referenced and intrinsic (Elliot, 2005).

Appendix

Working Excessively (WE)

1. I seem to be in a hurry and racing against the clock.
2. I find myself continuing to work after my coworkers have called it quits.
3. I stay busy and keep many irons in the fire.
4. I spend more time working than on socializing with friends, on hobbies, or on leisure activities.
5. I find myself doing two or three things at one time such as eating lunch and writing a memo, while taking on the telephone.

Working Compulsively (WC)

1. It is important to me to work hard even when I do not enjoy what I am doing.
2. I feel that there is something inside me that drives me to work hard.
3. I feel obliged to work hard, even when it is not enjoyable.
4. I feel guilty when I take time off work.
5. It is hard for me to relax when I am not working.

Note

1. The term *relative risk* may sound a bit awkward when applied to a positive state such as work engagement. Nevertheless we decided to follow the convention by employing this statistical term.

References

- Arbuckle, J. L. (2003). AMOS 5.0 [Computer software]. Chicago: SPSS.
- Aziz, S., & Zickar, M. J. (2006). A cluster analysis investigation of workaholism as a syndrome. *Journal of Occupational Health Psychology, 11*, 52-62.

- Brett, J. M., & Stroh, L. K. (2003). Working 61 plus hours per week: Why do managers do it? *Journal of Applied Psychology, 88*, 67-78.
- Buelens, M., & Poelmans, S. A. Y. (2004). Enriching the Spence and Robbins' typology of workaholism: Demographic, motivational and organizational correlates. *Organizational Change Management, 17*, 440-458.
- Burke, R. J. (2006). Workaholic types: It's not how hard you work but why and how you work hard. In R. Burke (Ed.), *Research companion to working time and work addiction* (pp. 173-192). Cheltenham, UK: Edward Elgar.
- Burke, R. J., & Koksal, H. (2002). Workaholism among a sample of Turkish managers and professionals: An exploratory study. *Psychological Reports, 91*, 60-68.
- Burke, R. J., & Matthiesen, S. (2004). Workaholism among Norwegian journalists: Antecedents and consequences. *Stress & Health, 20*, 301-308.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Erlbaum.
- Charlton, J. P., & Danforth, I. D. W. (2007). Distinguishing addiction and high engagement in the context of online gaming. *Computers in Human Behavior, 23*, 1531-1548.
- Conway, J. M. (2002). Method variance and method bias in industrial and organizational psychology. In S. G. Rogelberg (Ed.), *Handbook of research methods in organizational and industrial psychology* (pp. 344-365). Malden, NJ: Blackwell.
- Cudeck, R., & Browne, M. W. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. Scott Long (Eds.), *Testing structural equation models* (pp. 1-9). Newbury Park, CA: Sage.
- De Vellis, R. F. (2003). *Scale development: Theory and applications* (2nd ed.). Thousand Oaks, CA: Sage.
- Elliot, A. J. (2005). A conceptual history of the achievement goal construct. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 52-72). New York: Guilford.
- González-Romá, V., Schaufeli, W. B., Bakker, A., & Lloret, S. (2006). Burnout and engagement: Independent factors or opposite poles? *Journal of Vocational Behavior, 68*, 165-174.
- Iwasaki, K., Takahashi, K., & Nakata, A. (2006). Health problems due to long working hours in Japan: Working hours, workers' compensation (Karoshi), and preventive measures. *Industrial Health, 44*, 537-540.
- Iwata, N., Roberts, C. R., & Kawakami, N. (1995). Japan-U.S. comparison of responses to depression scale items among adult workers. *Psychiatry Research, 58*, 237-245.
- Kanai, A. (2006). Economic and employment conditions, Karoshi (work to death) and the trend of studies on workaholism in Japan. In R. Burke (Ed.), *Research companion to working time and work addiction* (pp. 158-172). Cheltenham, UK: Edward Elgar.
- Kanai, A., & Wakabayashi, M. (2001). Workaholism among Japanese blue-collar employees. *International Journal of Stress management, 8*, 129-203.
- Kanai, A., & Wakabayashi, M. (2004). Effects of economic environmental changes on job demands and workaholism in Japan. *Journal of Organizational Change Management, 17*, 537-552.
- Kanai, A., Wakabayashi, M., & Fling, S. (1996). Workaholism among employees in Japanese corporations: An examination based on the Japanese version of the Workaholism Scales. *Japanese Psychological Research, 38*, 192-203.
- Killinger, B. (2006). The workaholic breakdown syndrome. In R. Burke (Ed.), *Research companion to working time and work addiction* (pp. 61-88). Cheltenham, UK: Edward Elgar.
- Kitaoka-Higashiguchi, K., Nakagawa, H., Morikawa, Y., Ishizaki, M., Miura, K., Naruse, Y., et al. (2004). Construct validity of the Maslach Burnout Inventory-General Survey. *Stress and Health, 20*, 255-260.

- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology, 81*, 123-133.
- Leung, K., & Bond, M. H. (1989). On the empirical identification of dimensions for cross-cultural comparisons. *Journal of Cross-Cultural Psychology, 20*, 133-151.
- MacCallum, R., Roznowski, M., & Necowitz, L. B. (1992). Model specifications in covariance structure analysis: The problem of capitalization on chance. *Psychological Bulletin, 111*, 490-504.
- Machlowitz, M. (1980). *Workaholics: Living with them, working with them*. New York: Simon & Schuster.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion and motivation. *Psychological Review, 98*, 224-253.
- Maslach, C. (1986). Stress, burnout and workaholism. In R. R. Killberg, P. E. Nathan, & R. W. Thoreson (Eds.), *Professionals in distress: Issues, syndromes and solutions in psychology* (pp. 53-73). Washington, DC: American Psychological Association.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*, 397-422.
- Matsumoto, D., Kudoh, T., & Takeuchi, S. (1996). Changing patterns of individualist and collectivism in the United States and Japan. *Culture and Psychology, 2*, 77-107.
- McMillan, L. H. W., O'Driscoll, M. P., Marsh, N. V., & Brady, E. C. (2001). Understanding workaholism: Data synthesis, theoretical critique, and future design strategies. *International Journal of Stress Management, 8*, 69-91.
- McMillan, L. H. W., Brady, E. C., O'Driscoll, M. P., & Marsh, N. (2002). A multifaceted validation study of Spence and Robbins' (1992) Workaholism Battery. *Journal of Occupational and Organizational Psychology, 75*, 357-368.
- McMillan, L. H. W., & O'Driscoll, M. P. (2006). Exploring new frontiers to generate an integrated definition of workaholism. In R. Burke (Ed.), *Research companion to working time and work addiction* (pp. 89-107). Cheltenham, UK: Edward Elgar.
- Mudrack, P. E. (2004). Job involvement, obsessive-compulsive personality traits, and workaholic behavioral tendencies. *Journal of Organizational Change Management, 17*, 490-508.
- Mudrack, P. E. (2006). Understanding workaholism: The case of behavioral tendencies. In R. Burke (Ed.), *Research companion to working time and work addiction* (pp. 108-128). Cheltenham, UK: Edward Elgar.
- Mulé, S. J. (1981). *Behavior in excess*. New York: Macmillan.
- Ng, T. W. H., Sorensen, K. L., & Feldman, D. C. (2007). Dimensions, antecedents, and consequences of workaholism: A conceptual integration and extension. *Journal of Organizational Behavior, 28*, 111-136.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Oates, W. E. (1968). On being a "workaholic" (A serious jest). *Pastoral Psychology, 19*, 16-20.
- Oates, W. E. (1971). *Confessions of a workaholic: The facts about work addiction*. New York: World Publishing.
- Organisation for Economic Co-operation and Development. (2007). *OECD factbook: Economic, environmental and social statistics*. Paris: Author.
- Peterson, R. A. (1994). A meta-analysis of Cronbach's alpha. *Journal of Consumer Research, 21*, 381-391.

- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879-903.
- Porter, G. (1996). Organizational impact of workaholism: Suggestions for researching the negative outcomes of excessive work. *Journal of Occupational Health Psychology, 1*, 70-84.
- Porter, G. (2001). Workaholic tendencies and the high potential for stress among co-workers. *International Journal of Stress Management, 8*, 147-164.
- Porter, G. (2006). HRM perspectives on addiction to technology and work. *Journal of Management Development, 25*, 535-560.
- Robinson, B. E. (1998). *Chained to the desk: A guidebook for workaholics, their partners and children and the clinicians treating them*. New York: New York University Press.
- Robinson, B. E. (1999). The Work Addiction Risk Test: Development of a tentative measure of workaholism. *Perceptual and Motor Skills, 88*, 199-210.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*, 293-315.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66*, 701-716.
- Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion to study and research: A critical analysis*. London: Taylor & Francis.
- Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). Maslach Burnout Inventory-General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *The Maslach Burnout Inventory-Test manual* (3rd ed., pp. 22-26). Palo Alto, CA: Consulting Psychologists Press.
- Schaufeli, W. B., & Salanova, M. (2007a). Work engagement: An emerging psychological concept and its implications for organizations. In S. W. Gilliland, D. D. Steiner, & D. P. Skarlicki (Eds.), *Research in social issues in management* (pp. 135-177). Greenwich, CT: Information Age.
- Schaufeli, W. B., & Salanova, M. (2007b). Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety, Stress & Coping, 20*, 177-196.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A confirmatory factor analytic approach. *Journal of Happiness Studies, 3*, 71-92.
- Schaufeli, W. B., Taris, T. W., Le Blanc, P., Peeters, M., Bakker, A., & De Jonge, J. (2001). Maakt arbeid gezond? Op zoek naar de bevlogen werknemer [May work produce health? The quest for the engaged worker]. *De Psycholoog, 36*, 422-428.
- Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2008). Workaholism, burnout, and engagement: Three of a kind or three different kinds of employee well-being. *Journal of Applied Psychology: An International Review, 57*, 173-203.
- Schaufeli, W. B., & Van Dierendonck, D. (2000). *Handleiding van de Utrechtse Burnout Schaal (UBOS)* [Manual Utrecht Burnout Scale]. Lisse, Netherlands: Swets Test Services.
- Scott, K. S., Moore, K. S., & Miceli, M. P. (1997). An exploration of the meaning and consequences of workaholism. *Human Relations, 50*, 287-314.

- Shimazu, A., Schaufeli, W. B., Kosugi, S., Suzuki, A., Nashiwa, H., Kato, A., et al. (2008). Work engagement in Japan: Development and validation of the Japanese version of Utrecht Work Engagement Scale. *Journal of Applied Psychology: An International Review*, *57*, 510-523.
- Shirom, A. (2003). Job related burnout: A review. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 245-264). Washington, DC: American Psychological Association.
- Snir, R., & Harpaz, I. (2006). The workaholism phenomenon: A cross-national perspective. *Career Development International*, *11*, 374-393.
- Snir, R., & Zohar, D. (2008). Workaholism as discretionary time investment at work: An experience sampling study. *Journal of Applied Psychology: An International Review*, *57*(1), 109-127.
- Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend. *Organizational Research Methods*, *9*, 221-232.
- Spence, J. T., & Robbins, A. S. (1992). Workaholism: Definition, measurement, and preliminary results. *Journal of Personality Assessment*, *58*, 160-178.
- Steenkamp, J. B. E. M., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research*, *25*, 78-93.
- Stone, A. A., & Shiffman, S. (1994). Ecological momentary assessment (EMA) in behavioral medicine. *Annals of Behavioral Medicine*, *16*, 199-202.
- Streiner, D. L. (2003). Starting at the beginning: An introduction into coefficient alpha and internal consistency. *Journal of Personality Assessment*, *80*, 99-103.
- Taris, T. W., Schaufeli, W. B., & Verhoeven, L. C. (2005). Internal and external validation of the Dutch Work Addiction Risk Test: Implications for jobs and non-work conflict. *Journal of Applied Psychology: An International Review*, *54*, 37-60.

Wilmar B. Schaufeli is full professor of work and organizational psychology at Utrecht University, The Netherlands. He worked in the areas of clinical psychology, and work and organizational psychology at Groningen University and Nijmegen University, respectively. Currently, he is visiting professor at Loughborough Business School, United Kingdom, and Jaume I Universitat, Spain. For more than two decades, he is an active and productive researcher in the field of occupational health psychology, who published more than 250 articles, chapters, and books. Initially, his research interest was particularly on job stress and burnout, but in recent years, this shifted toward positive occupational health issues such as work engagement. He has been actively involved in psychotherapeutic treatment of burned-out employees and is now engaged in organizational consultancy. In addition, he holds various managerial positions in (inter)national professional organizations and serves on the boards of ten journals. For more information, see www.schaufeli.com.

Akihito Shimazu is associate professor at the Department of Mental Health at the University of Tokyo, Japan. He took his PhD in psychology in 2000 from Waseda University. His research interests include job stress and coping, stress management at workplace, work engagement, and the application of IT for stress management. He has published on a wide array of topics in journals such as *Journal of Behavioral Medicine*, *International Journal of Behavioral Medicine*, *International Archives of Occupational and Environmental Health*, and *Work & Stress*. He currently serves on the boards of *Journal of Occupational and Organizational Psychology* (consulting editor) and *BioScience Trends*.

Toon W. Taris is full professor of work and organizational psychology at the Radboud University Nijmegen, The Netherlands. He holds an MA degree in administrative science (1988) and took his PhD in psychology in 1994, both from the Free University of Amsterdam. His research interests include (excessive) work motivation, informal learning at work, psychosocial work stress models, and longitudinal research methods. He has published extensively on a wide array of topics in journals such as *Journal of Applied Psychology*, *Personnel Psychology*, *Sociological Methods and Research*, and the *Journal of Organizational and Occupational Psychology*. He currently serves on the boards of *Work & Stress* (deputy editor), *Psychology & Health* and the *Scandinavian Journal of Work, Environment and Health*.

4. 特集

e-ラーニングによる健康教育：労働者のストレス対策に注目して

馬ノ段 梨乃¹⁾²⁾、島津 明人³⁾

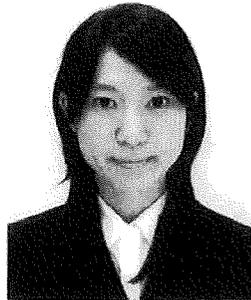
¹⁾日本学術振興会特別研究員

²⁾東京大学大学院医学系研究科健康科学/看護学専攻精神保健学分野

³⁾東京大学大学院医学系研究科公共健康医学専攻精神保健学分野

1. はじめに

近年、コンピュータやインターネットのユーザー数は増加してきており、健康教育の場においてもこれらの技術を用いたプログラム実施の可能性が拡大してきている。コンピュータやインターネットによる診断、教育プログラムは「人的資源を最小限にできる」、「標準



化されたツールを提供できる」、「対費用効果を高める可能性がある」等の利点があり、今後の活用が期待される。

本稿では、e-ラーニングによる健康教育に関して、① 近年の動向、② 職場に特化した介入プログラムの実際、③ 今後の展望について述べたい。

2. e-ラーニング：近年の動向

1964年に世界初の汎用コンピュータが発売されて以降、コンピュータやウェブを用いた教育（以降、e-ラーニング）が増加している。e-ラーニングとは、パソコンやインターネットなどの情報機器や通信環境を用いて行う学習方法の総称である。

CD-ROMや衛星通信などで配信される講座を受講するものも広い意味ではe-ラーニングに含まれるが、インターネットやイントラネットといったネットワークを活用し、オンラインで提供される教材に対して受講者一人ひとりがアクセスして学習するスタイルを指す方が一般的である。ウェブ・ブラウザが使われることが多いため、WBT（Web-Based Training）と呼ばれることもある¹⁾。

2003年8月には内閣府に、行動情報通信ネットワーク社会推進戦略本部（IT戦略本部）が設置され、情報技術を用いた遠隔教育のe-ラーニングの活用が政策として掲げられており²⁾、コンピュータを用いた教育システムに対する注目の高さがうかがえる。

e-ラーニングの健康教育への活用に関して、メタ分析の結果から、コンピュータを活用した健康教育は参加者の健康行動に関する知識・態度・意識を改善し、さらに健康行動（栄養摂取・喫煙・薬物使用）および健康の維持管理に効果があることが示されている³⁾。具体的には、肥

満解消のために個人の特性に合わせた減量プログラム⁴⁾、認知症の介護者に対する教育プログラム⁵⁾などがあり、学習によって医療へのコンプライアンスやメンタルヘルス、QOLが向上するなどその有効性が証明されている。このほか精神疾患患者の抑うつや不安の改善⁶⁾、生活習慣病患者の心理教育にもeラーニングが活用されている。

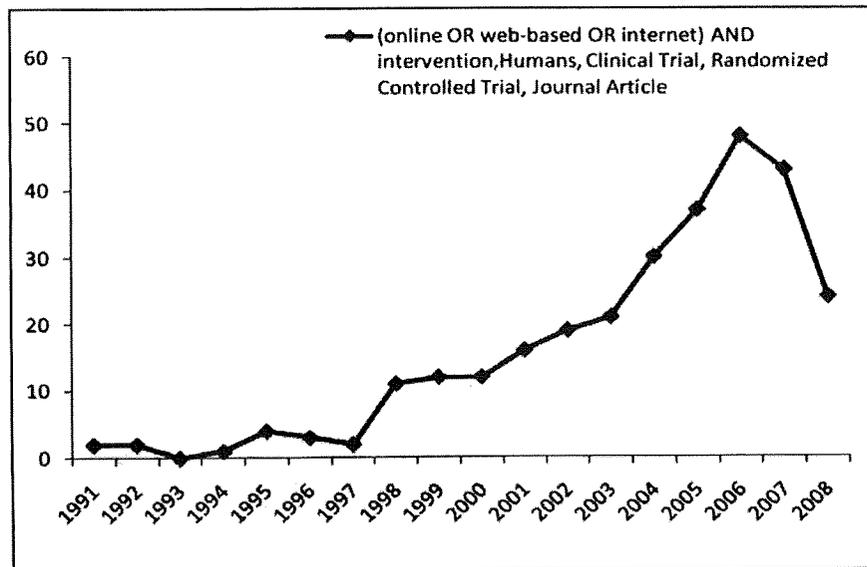


図1 eラーニング:近年の動向 (2008年9月時点)

eラーニングを用いた介入の総数は、2000年代に入り急速に増加している。1991年から2008年までに実施されたインターネットを用いた比較対照試験 (CT)、または無作為化比較試験 (RCT) の総数を「online OR web-based OR internet」、「intervention」をキーワードとしてPubMedで検索したところ、図1の結果が得られた。1990年代には10に満たなかった論文掲載数が現在では年間約50前後に増加し、コンピュータを用いた介入の効果評価が進められている。介入形態は知識教育、サポートグループ (チャットの利用)、書き込み式のワーク、映像を用いた教育等様々である。

また近年、働く人のメンタルヘルス上の問題が注目されるようになり、職場においても健康管理や疾病予防などの一次予防に対する需要が高まっている。もともと企業内教育においてeラーニングが普及しつつあるが、業務に関連したスキルの修得だけではなく、メンタルヘルス向上を目的とした教材も開発されている⁷⁾。図2はインターネットを用いたCT、RCTの対象を職場に限定し、ストレスをキーワードにPubMed、Web of Science、PsycINFOにより検索した結果である。重複を省き、レビューや学会発表を除外した。職場のストレスに関する介入は2004年頃までチャットによるサポートグループの活用が多く報告され、「教材・情報の提供」としてWebを用いた研究は2005年以降に増加している。海外だけでなく、日本においても同様の傾向がみられる。

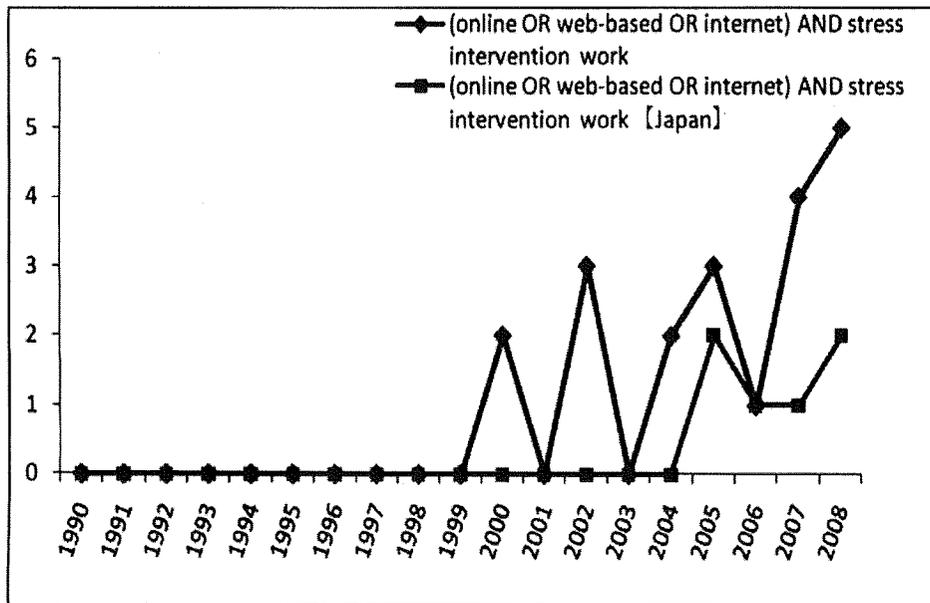


図2 労働者に対するe-ラーニングの活用総数(2008年9月時点)
 ※<◆-日本・海外を含めた総数, ■-日本のみの論文数>

3. 職場における介入プログラムの実際

職場でのe-ラーニングは、睡眠教育⁷⁾やアサーション訓練⁸⁾、ストレス対処スキル訓練⁹⁾などで活用されており、e-ラーニングを用いた介入が従業員個人のストレスや健康問題に一定の効果を示す可能性が示唆されている。

Shimazu⁹⁾は、企業の間接部門の従業員225名を対象に、受講者の問題解決能力(セルフケア)向上を目的とした比較対照試験(CT)を実施した。プログラムの内容は、ストレスに関する知識や適切なストレス対処(コーピング)スキルの学習である(図3)。その結果、1ヶ月の学習期間を終了した時点で、受講者の自己効力感や問題解決行動、職務満足感が向上したと報告している。また、e-ラーニングの活用の範囲は幅広く、従業員個人のセルフケアとしてのみならず、ラインケアにおいても活用されている。

Kawakami^{10), 11)}は、営業部門の管理監督者に対して、職場やメンタルヘルスに関するe-ラーニング教育を行い、管理監督者教育の部下に対する波及効果を検討した。その結果、学習によって管理監督者のメンタルヘルスに関する知識や態度が向上した。さらに職場の雰囲気が良好になり、部下の仕事への自主性が向上したと報告されている。

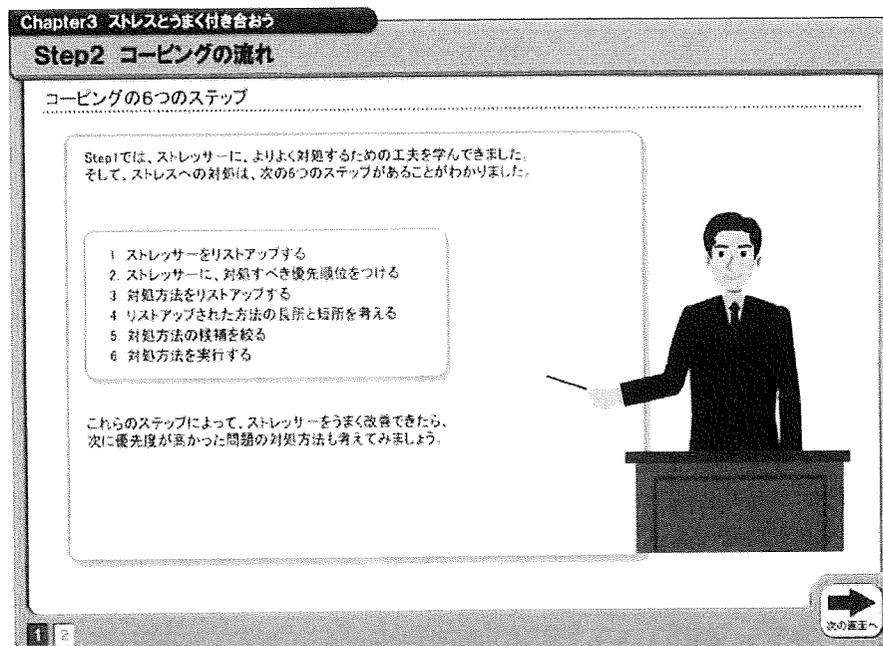


図3 ストレス対処（コーピング）スキル教材の画面例⁶⁾

Kawakami¹⁰⁾は職場におけるストレス教育でe-ラーニングを活用することの利点として以下4点を挙げている。

- ① 一同で講義に参加する必要がない
- ② 実施に関して柔軟性をもつ
- ③ 必要なだけ学習を繰り返すことができる
- ④ 学習の進捗を事務局がモニターできる

e-ラーニングは受講者にとって自分のペースで学習でき、場所や時間を選べることから、勤務時間や研修会場までの費用などの負担がなく、使用者の好みや力量に合わせた実施が可能である。また、提供者にとっては、情報の収集や調整、普及、説明を促進できる。さらに学習の全過程を終了するように管理ができ、ガイドラン、情報、その他プログラムの変更をWebページへすぐにアップデートできるという点で柔軟性が高い。

4. 今後の展望

コンピュータの需要が増大するにつれ、e-ラーニングを用いた健康教育の可能性も広がってきた。e-ラーニングを利用することの長所として、学習が記録されるためにセッションの情報を貯蔵・再提示することが容易であること、安価であること、学習時間や場所が自由であることがあげられる。

一方短所として、受講者の非言語的情報を利用することができず、習得の程度が不明なこと、対人接触がないため物足りない受講者も出てくること、受講者がテキストの内容を誤解してしまう可能性があること、コンピュータが必要であることがあげられる^{12),13)} (表1)。

表 1 e-ラーニングの長所と短所 (Jacobs et al.,2001; Suler, 2000 より作成)

長所	短所
セッション情報の貯蔵・提示が用意	受講者の非言語的情報の利用が不可
対人関係が苦手な人でも教育可能	対人接触がないため、物足りない受講者あり
安価	受講者がテキストの内容を誤解している可能性あり
学習時期案・場所が自由	コンピュータが必要

一般的に個人が主体となる通信教育は、孤独感に陥りやすく学習を続けるモチベーションを維持することが難しいとされている。このため、個人学習とはいえ放任するのではなく、学習の進捗が遅れていれば励ましたり、学習上の疑問に対する回答や心理的な支援を含めて、受講者が目標に沿って学習できるような案内役が必要になる。また、学習の進み具合や目標達成度などを管理する仕組みも重要である。e-ラーニングが一方的な情報の提示のみであれば、たとえ効果的な介入プログラムを使用していたとしても、学習を完了する前に途中で学習を終了してしまったり、取り組みさえしなかったりと脱落しやすいであろう。受講者にとっては学習がどこまで進み、設定した目標をどのレベルまでクリアしているのかを随時把握できれば励みになる。研修実施者が受講者一人ひとりの到達目標や進捗状況を一覧し、状況に応じて適宜方向付けできるような仕組みを整えることにより、学習効果も向上するといえる。教材のコンテンツだけでなく、運営方法に関しても今後検討していく必要がある。

5. 引用文献

- 1) 入交洋彦. 第 18 章・トピック 1 情報技術 (IT) を活用した健康教育. 西本武彦, 大藪泰, 福澤一吉, 越川房子 (編著). 現代心理学入門, 朝倉書店 (印刷中)
- 2) 高度情報通信ネットワーク社会推進戦略本部 e-Japan 重点計画 2003 : 東京, 2003 年
- 3) Portnoy DB, Sheldon LJAS, Johnson BT, Carey MP. Computer-delivered intervention for health promotion and behavioral risk reduction. A meta-analysis of 75 randomized controlled trials, 1988-2007. *Prev Med* 47 : 3-16, 2008.
- 4) Ezendam NPM, Oenema A, van de Looij-Jansen PM, Brug J. Design and Evaluation Protocol of "FATaintPHAT", a Computer-Tailored Intervention to Prevent Excessive Weight Gain in Adolescents. *BMC Public Health* 7 : 324, 2007.
- 5) Beauchamp N, Irvine AB, Seeley J, Johnson B. Worksite-based internet multimedia program for family caregivers of persons with dementia. *The Gerontologist* 45(6) : 793-801, 2005.
- 6) Christensen H, Griffiths KM, Jorm AF, Delivering interventions for depression by using the internet. randomised controlled trial *BMJ* 328 : 265, 2004.
- 7) Suzuki E, Tsuchiya M, Hirokawa K, Taniguchi T, Mitsuhashi T, Kawakami N. Evaluation of an Internet-Based Self-Help Program for Better Quality of Sleep among Japanese Workers. A Randomized Controlled Trial. *J Occup Health* 50 : 387-399, 2008.
- 8) Yamagishi M, Kobayashi T, Kobayashi T, Nagami M, Shimazu A, Kageyama T. Effect of web-based assertion training for stress management of Japanese nurses.

- Journal of Nurs Manag 15 : 603-607, 2007.
- 9) Shimazu A, Kawakami N, Irimajiri H, Sakamoto M, Amano S. Effects of web-based psychoeducation on self-Efficacy, problem solving behavior stress responses and job satisfaction among workers. A controlled clinical trial, *J Occup Health* 47(5) : 405-413, 2005.
 - 10) Kawakami N, Kobayashi Y, Takao S, Tsutsumi A. Effects of web-based supervisor training on supervisor support and psychological distress among workers. a randomized controlled trial. *Prev Med* 41(2) : 471-478, 2005.
 - 11) Kawakami N, Takao S, Kobayashi Y, Tsutsumi A. Effects of web-based supervisor training on job stressors and psychological distress among workers. A workplace-based randomized controlled trial. *J Occup Health* 48(1) : 28-34, 2006.
 - 12) Jacobs MK, Christensen A, Snibbe JR, Dolezal WS, Huber A, Polterok A. A comparison of computer-based versus traditional individual psychotherapy. *Prof Psychol Res Pr* 32 : 92-96, 2001.
 - 13) Suler JR. Psychotherapy in Cyberspace. A 5-Dimensional Model of Online and Computer-Mediated Psychotherapy. *Cyberpsychol Behav* 3 : 151-159, 2000.

職場における個人向けストレス対策 —介入方略の変遷と新たな視点—

馬ノ段梨乃 土屋 政雄 島津 明人

要約 労働者個人を対象としたストレス対策において、近年、パフォーマンスの維持・向上を意識した新たな技法導入の流れが起りつつある。個人がいきいきと活気ある職業生活を送るためには、ストレスの低減のみに縛られない新たな視点が必要とされる。

本稿では、職場における個人向けストレス対策の変遷と近年注目される行動理論を用いた新たな介入方略（アクセプタンス&コミットメントセラピー：ACT）について、文献を紹介したい。

I. はじめに

近年、我が国では個人や組織の活性化を目的としたメンタルヘルス対策への関心が高まっている。これまでの職場におけるメンタルヘルス対策は、Lazarusの心理学的ストレスモデル¹⁾やNIOSHの職業性ストレスモデルに基づき、労働者の感じるストレスをいかに低減するかが主な目的とされてきた。しかし、労働力人口が減少し、組織の在り方が大きく変化する中で、精神的不調者を対象とした対策だけでなく、健康度の高い労働者による生産性の高い職場づくりを目的とした対策が求められはじめた。このような状況の中、個人を対象としたストレス対策で用いられる方略においても、ストレスの低減だけでなく、パフォーマンスやコミットメントの向上を意識した技法が導入されるようになった。本稿では、職場における個人向けストレス対策の変遷と近年注目される行動理論を用いた新たな介入方略について、文献を紹介したい。

II. 個人向けストレス対策：介入技法の変遷

ストレスに関する個人の気づきや効果的な対処法を習得するための心理教育活動は一般にストレスマネジメントトレーニング（Stress

Management Training：SMT）と呼ばれている²⁾。職場におけるSMTでは様々な技法が用いられているが、認知再体制化やリラクゼーション法などの認知的・行動的技法に基づくコーピングスキル訓練が最も一般的かつ効果的な介入方法としてあげられる³⁾。これらの介入は、個人のコーピング資源を強化したり、好ましくない認知と感情との関係を弱めたりすることを目的としており、多くはセルフケア研修として講義やグループワーク、e-ラーニングの形式で提供されている。

過去30年における職場SMTプログラムの内容は、認知／行動療法の技法開発の流れを反映している⁴⁾。Hayes⁵⁾は、介入プログラムにおける技法の開発過程を3つの波に例えて、それぞれを第一の波（第一世代）、第二の波（第二世代）、第三の波（第三世代）としてこれまでの技法の変遷を示した。これらの記述を参考に、職場SMTプログラムにおける介入の目的と技法の変遷を図1にまとめた。第一世代の介入は、系統的脱感作に基づくリラクゼーション技法を中心としたプログラムであり、1970年代頃に導入された。第二世代の技法は、ベック⁶⁾やエリス⁷⁾の認知療法の原理と手法を用いた方略であり、1980年代、職場SMTに関する介入研究の