Videoconferencing time management program procrastination

Mikan Katsuki, Yusuke Shudo

Keywords: procrastination, time management, online

Introduction

Procrastination is a maladaptive behavior that affects many individuals. Time management programs based on cognitive behavioral therapy (CBT) are effective in reducing procrastination (van Eerde & Klingsieck, 2018). These effects have mainly been demonstrated in programs comprising approximately eight sessions (Karim & Kandy, 2011). However, their impact on actual behavioral change remains underexplored. This study examines the effects of a short term videoconferencing-based time management program, using both psychological and behavioral outcome measures.

Method

◆ Participants and Method

ID	Affiliation	Gender	Target Behavior	Purpose
P1	Graduate Student	Male	Exercise	Dieting
P2	Graduate Student	Male	Study behavior	Improving the quality of academic tasks
P3	Working Adult	Female	Household tasks	Improving lifestyle habits

The program, implemented using a multiple-baseline design and focused on task accomplishment as the primary outcome, was based on the studies by Solanto (2011, 2015) and Karim and Kandy (2011) (see Fig. 2).The first session introduced behavioral tracking—task completion for all participants, screen time for two, and weight for one—followed by staggered baseline phases across participants. Subsequent sessions focused on developing time management skills. Behavioral changes were assessed through measures such as the number of tasks accomplished, screen time, weight, and psychological scale scores.

A follow-up interview was conducted 1 month after the final session to explore participants' experiences and perceptions of the program.

◆ Measures

Behavioral scales

Primary outcome: Daily to-do list recordings and number of tasks completed.

Secondary outcomes: weight (P1), screen time (P2,P3)

Psychological scales

・General Procrastination Scale (GPS : Hayashi, 2007)

Qualitative data

・Participants' own reflections captured through the follow-up interviews.

◆ Analysis

・The Tau-U test was utilized to analyze behavioral scales, specifically a number of task achievement per day (Vannest et al, 2016).

・The Reliable Change Index (RCI) was utilized to analyze GPS.

Result

The program significantly improved task accomplishment for two out of three participants (P1, P3). The third participant (P2) did not show behavioral improvement but exhibited a significant psychological change, as indicated by a reliable reduction on the GPS (pre: 41, post: 29, RCI > 1.96). No significant changes were observed in screen time or weight across participants. In follow-up interviews, two participants (P2, P3) reported using their smartphones—such as listening to music or audio content—to aid task performance. While P1 and P3 found the program helpful, P2 reported feeling constrained by the reward and environmental setup.

Discussion

The program showed potential in reducing procrastination, particularly in task implementation. However, no significant effects were found on secondary outcomes such as smartphone use or weight. Effects also varied across individuals. Given that time management alone may not sufficiently influence motivation or emotional regulation (Häfner & Stock, 2010), incorporating values clarification may enhance program effectiveness. Additionally, assessing participants' resistance to the strategies may help tailor the intervention more effectively.

Our short-term online program boosted task completion in 2 of 3 participants but still has scope for improvement on other procrastination factors.

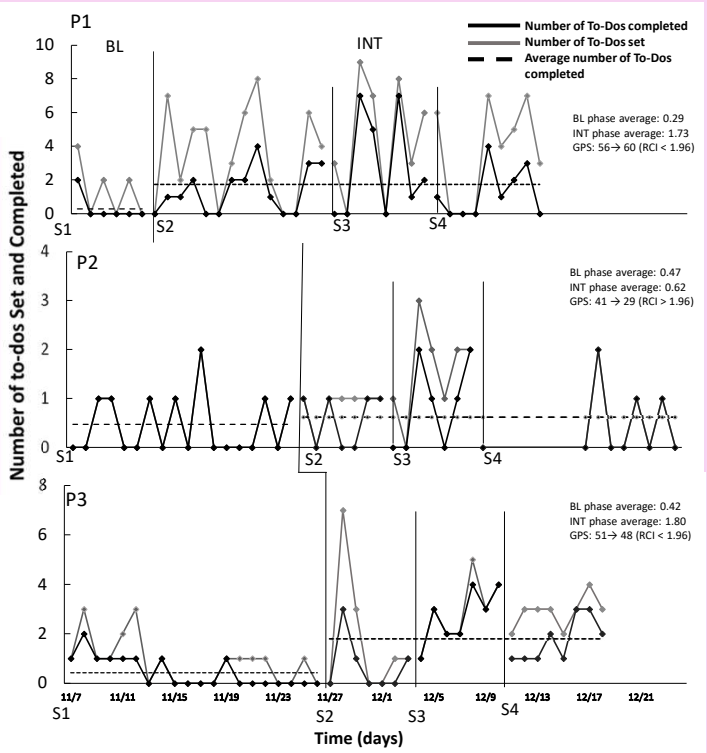

Figure 1. Trends in the Number of To-Dos Set and Completed

Note:

・BL stands for Baseline period. INV stands for intervention period. ・P1 to P3 represent each participant. S1 to S4 refer to sessions 1 to 4 in the program.

・GPS score measured at S1 and 1-month follow-up

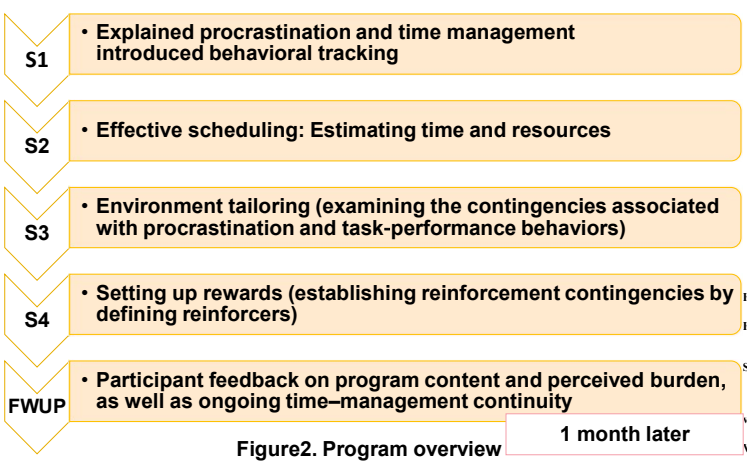

Figure2. Program overview

	S	TAU	SD	VARs	Z	p
Participant 1 baseline vs. intervention	105	0.50	51.57	2660	2.04	0.04
Participant 2 baseline vs. intervention	28	0.07	76.5	5852	0.37	0.70
Participant 3 baseline vs. intervention (corrected baseline)	287	0.87	79.5	6321	3.61	0.00

Table 1. Tau-U analysis results for each participant's TODO completion counts

S = the number of non-overlapping data points between phases

VARs = the rate of change (increase or decrease)

Z = the Z-score (standard score measuring how many standard deviations a value is from the mean)

References

Häfner, A., & Stock, A. (2010). Time management and procrastination. in: Time Management Research at the Crossroads: Toward More Sustainable Productivity. University of Amsterdam.

Hayashi, J. (2007). Development of the Japanese version of the General Procrastination Scale. *The Japanese Journal of Personality,* 15(2), 246–248. https://doi.org/10.2132/personality.15.246

KarimS,KandyM.TimeManagementSkillsImpact onSelf-Efficacy and Academic Performance. Journal of American Science. 2011; 7: 720-726.

Solanto, M. V. (2011). Cognitive-behavioral therapy for adult ADHD: Targeting executive dysfunction. Guilford Press.Japanese translation: Nakajima, M., & Satō, M. (Trans.) (2015). Seijin ADHD no ninchi kōdō ryōhō: Jikkō kinō shōgai no chiryo no tameni [Cognitive-behavioral therapy for adult ADHD: Targeting executive dysfunction]. Seiwa Shoten.Steel, P. (2007). e nature of procrastination: A metaanalytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin,* 133, 65–94.

van Eerde, W., & Klingsieck, K. B. (2018). Overcoming procrastination? A meta-analysis of intervention studies. Educational Research Review, 25, 73–85. https://doi.org/10.1016/j.edurev.2018.09.002

Vannest, K.J., Parker, R.I., Gonen, O., & Adiguzel, T. (2016). Single Case Research: web-based calculators for SCR analysis. (Version 2.0) [Web-based application]. College Station, TX: Texas A&M; University. Retrieved Sunday 24th March 2024. Available from singlecaseresearch.org