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Received 11 October 2016; revised 1 November 2016;

accepted 6 November 2016.

Can Pokémon GO rescue shut-ins (*hikikomori*) from their isolated world?

doi:10.1111/pcn.12481

A COMMUNITY-BASED EPIDEMIOLOGICAL survey has suggested that the lifetime prevalence of *hikikomori* (a severe form of social withdrawal) is approximately 1.2% in Japan.¹ More recently, a Japanese cabinet report has estimated the population to be much smaller at 541 000. However, this figure only includes people aged 15–39 years, partially excluding middle-aged *hikikomori* patients, who are widely considered a novel emerging issue. We thus assume the total number of *hikikomori* to be far larger than this estimate.²

Moreover, the *hikikomori* phenomenon has become a global issue, as is reflected by increasing case reports of *hikikomori* in various other countries.^{3,4} *Hikikomori* is negatively impacting not only the affected individual's mental health, but also population-level education and workforce issues worldwide.^{3,4} To date, there has been no evidence showing a correlation between the use of personal computers (PCs) and/or information technology (IT) and the occurrence of *hikikomori*, at least in Japan. However, games and communication tools using PCs and/or smartphones are rapidly changing; thus, we believe that some of the emerging IT technologies may contribute to at least some groups of *hikikomori*.^{3,5,6}

After the emergence of home video games in the 1980s, children who had hitherto played outside began to shut themselves up inside their homes and push 'play'. It does not seem a coincidence that *hikikomori* came to be considered a problem in this age group. Youth raised from early childhood within a mainly indirect play environment may be unable to fluidly conduct interpersonal relationships in the real world

as adults. 'Clear' and 'realistic' rewards in the world of virtual games lead to immediate satisfaction, but real world rewards seem less clear and attainable with more efforts and endurance. Thus, an increasing number of young people have difficulty motivating themselves to participate in real society, some quitting school or work, and instead becoming shut-ins occupying their time in virtual-reality worlds. The difficulty lies in the very lack of motivation to venture outside. Unfortunately, despite various therapeutic interventions for *hikikomori*, evidence-based solutions are lacking. It should be mentioned that the first guideline for *hikikomori* was published by the Ministry of Health, Labor, and Welfare in 2010,⁷ in which a four-step intervention is recommended. Phase 1 involves family support, first contact with the individual, and his/her evaluation; Phase 2 consists of individual support; Phase 3 includes training with an intermediate-transient group situation (such as group therapy); and Phase 4 involves a social participation trial. This accounts for the standard intervention style in Japan, and some clinicians report such an intervention as an effective way to improve *hikikomori* conditions.⁸

Pokémon GO, a new location-based augmented reality game that connects Internet society with real roadmaps, offers a tempting new approach to treating *hikikomori*. We are hopeful for Pokémon GO as a novel therapeutic tool enhancing the motivation of patients with *hikikomori* to venture outside and to try to participate in society as components of Phase 1 and 4 of the above guideline. Our outpatient clinic for *hikikomori* provides face-to-face group psychotherapy. To our amazement, a participant who previously had been barely able to go out has begun to venture out daily with the emergence of Pokémon GO. His main destination is public parks filled with other people in search of Pokémons, though they do not converse with each other. He said, 'Most people are independently staring at their own individual screens in parks. We Japanese, unlike Westerners, don't chat with strangers!'

In fact, many shut-in individuals are starting to go out with Pokémon GO by their own motivation without any external pressures. Of course, only 'going out' is not any kind of solution to this issue, but does provide a 'first step' towards more permanent solutions. Behind the pathology of *hikikomori* lie difficulties in interpersonal exchanges and deeper psychological problems beyond the scope of these augmented reality games. There is also a risk of these games creating further problems.⁹ A solution may lie in the balanced application of these novel games to engage shut-ins in a psychotherapeutic treatment process. Until now the underlying biopsychosocial mechanisms for producing appropriate motivation (will-dynamics) have not been explored sufficiently. Enhancing continuous self-motivation to go out and to enter therapeutic situations and society using such augmented reality technologies may be a novel therapeutic strategy that provides ongoing benefits in the process of treating *hikikomori*.

DISCLOSURE STATEMENT

All authors declare that they have no conflicts of interest.

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Received 1 September 2016; revised 6 November 2016;

accepted 7 November 2016.