

Hikikomori, COVID-19 and Novel Therapeutic Approach





Takahiro A. Kato, MD, PhD

Associate Professor

Mood Disorder / Hikikomori Clinic, Kyushu University Hospital & Department of Neuropsychiatry, Graduate school of Medical Sciences, Kyushu University, Fukuoka, Japan



Today's Topic

What is Hikikomori

- Japan and Worldwide
- COVID-19



Understanding Hikikomori (Hikikomori Research Clinic)

Psychological, Sociocultural and Biological Aspects

Intervention of Hikikomori

- Step by Step Approach (Multi-dementional Model)
- Family Intervention (MHFA-based)
- Novel approach (Animals, Robots and Avatars)

The casual Japanese word "Hikikomoru-ひきこもる" has been used to describe the behavior and/or condition of **shut-ins from non-pathological to severe pathological state since 1970s**.

Dr. Tamaki Saito initially used the word "Hikikomori-ひきこもり" in 1998.

Oxford Dictionaries

The world's most trusted dictionaries

Listed in Oxford Dictionaries Since October 2010



Pronunciation: /hiˌkēkəˈmôri/



Definition of hikikomori

noun (plural)

(in Japan) the abnormal avoidance of social contact, typically by adolescent males.

a person who avoids social contact.

Origin:

Japanese, literally 'staying indoors, (social) withdrawal'



How common is hikikomori in Japan?

Psychiatry Research 176 (2010) 69-74



Contents lists available at ScienceDirect

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres



Lifetime prevalence, psychiatric comorbidity and demographic correlates of "hikikomori" in a community population in Japan

Asuka Koyama ^{a,*}, Yuko Miyake ^a, Norito Kawakami ^b, Masao Tsuchiya ^{b,c}, Hisateru Tachimori ^a, Tadashi Takeshima ^a The World Mental Health Japan Survey Group, 2002–2006

^c Hygiene and Preventive Medicine, Okayama University, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan



1.2%

(232,000?)

^a National Institute of Mental Health, National Center of Neurology and Psychiatry, Kodaira, Japan

^b Department of Mental Health, Graduate School of Medicine, the University of Tokyo, Tokyo, Japan



Why won't 541,000 young Japanese leave the house? Age 15-39

By Emiko Jozuka, CNN

Japan's Cabinet Office Report 2016 (1856 HKT) September 12, 2016

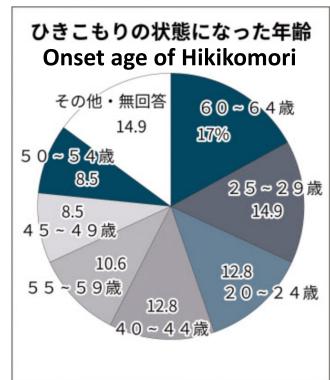


Source: CNN

Survey reveals 610,000 middle-aged people live as shut-ins

THE ASAHI SHIMBUN

March 29, 2019 at 18:30 JST



(15-39 y.o.) 540,000 + (40-59 y.o.) 610,000

1,150,000



JULIA NASCIMENTO

LIFESTYLE

The prison inside: Japan's hikikomori lack relationships, not physical spaces

BY ANDREW MCKIRDY

STAFF WRITER

The "8050 problem"

Individuals with hikikomori in their 50s living alone with parents who are in their 80s

Is Hikikomori only in JAPAN?

Hypothesis Paper to Spread Hikikomori Worldwide

ひきこもりが世界拡大することを予測(Kato Lancet 2011)



Are Japan's hikikomori and depression in young people spreading abroad?

Hikikomori, or severe social withdrawal, in Japan's young people has been a prominent public mental health concern since around 2000. Another, more recent, concern is a syndrome dubbed "modern-type depression". This catchy name has quickly and widely spread to the public via Japan's mass media and internet-related media, yet there is no consensus guideline for its diagnosis and treatment, which has led to confusion when dealing with the disorder in clinical practice.

Modern-type depression is characterised by a shift in values from collectivism to individualism; distress and reluctance to accept prevailing social norms; a vague sense of and Spain, leading to debate as to whether hikikomori is a culture-bound syndrome specific to Japan or a new form of maladjustment or psychiatric disorder.4

We did an international survey to investigate whether these syndromes exist beyond Japan. 45 Psychiatrists' responses to vignettes indicated that both hikikomori and moderntype depression are seen in various countries, and are more prevalent in urban areas, which might suggest that modernisation has an important role in the occurrence of these phenomena. respondents Many suggested that hikikomori and modern-type depression might not fit into current international diagnostic categories, and some felt that hikikomori could be seen as a form of internet addiction.

These reports provide a rational basis for epidemiological and ethnographic studies of hikikomori and modern-type depression in clinical and community populations in different countries. They might not simply be Japanese cultural phenomena; rather, they

190. 444-43.

Kato TA, Tateno M, Shinfuku N, et al. Does the 'hikikomori' syndrome of social withdrawal exist outside Japan? A preliminary international investigation. Soc Psych Psychiatr Epidemiol 2011; published online June 25.DOI:10.1007/ s00127-011-0411-7.

Department of Error

Holmes D. Keizo Takemi: a catalytic charisma. Lancet 2011; 378: 1065. DOI:10.1016/S0140-6736(11)61387-1—In this Profile (published online Aug 30), the first sentence of the third paragraph should read: "Despite being the son of the famous physician and scientist Taro Takemi, who was head of the Japanese Medical Association for 25 years...". The second sentence of the sixth paragraph should read: "This inevitably led to Takemi also taking a close interest in health and welfare. particularly health-system reforms and later the introduction of the elderly care insurance system in 2000." These corrections have been made to the online version as of Aug 31, 2011, and to the printed Profile.

Case V Takahir Tsuyosh Yatan P Helal U Ryohei

Research

Introd

Published Online August 31, 2010 DOI:10.1016/S0140-6736(11)61395-0

See Perspectives page 1065

(Kato*, Shinfuku, Sartorius & Kanba, Lancet 2011)

etiology,

aire (12)

www.thelancet.com Vol 378 September 17, 2011

1070

Methods Two hikikomori case vignettes were sent to psychiatrists in Australia, Bangladesh, India, Iran, Japan, Korea, Taiwan, Thailand and the USA. Participants rated syndrome is seen in all countries examined and especially in urban areas. Biopsychosocial, cultural, and environmental factors were all listed as probable causes of hikikomori, and differences among countries were not significant. Japanese



Identification of the hikikomori syndrome of social withdrawal: Psychosocial features and treatment preferences in four countries

International Journal of
Social Psychiatry
1–9
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DOI: 10.1177/0020764014535758
Isp.sagepub.com

International Journal of Social Psychiatry



Alan R Teo¹, Michael D Fetters², Kyle Stufflebam³, Masaru Tateno⁴, Yatan Balhara⁵, Tae Young Choi⁶, Shigenobu Kanba⁷, Carol A Mathews⁸ and Takahiro A Kato^{7,9}

Abstract

Background: Hikikomori, a studies of cases of hikikomori Aims: To identify individuals Method: Participants were a 6-month or longer period associated with significant di (UCLA) Loneliness Scale, Lu Treatment Preferences Index Results: A total of 36 participants and high levels of 1 = 9.7, SD = 5.5) and moderate their social withdrawal, with

Characteristic	Total (n = 36) n (%)	Japan (n = 11) n (%)	(n = 11) n (%)	(n = 10) n (%)	(n = 4) n (%)		Þ
Male	29 (81)	10 (91)	7 (64)	9 (90)	3 (75)		.33
Age (years)							
18–21	11 (32)	2 (18)	2 (18)	3 (30)	4 (100)	}	.04
22–30	11 (32)	3 (27)	4 (36)	6 (60)	0 (0)		
31-49	12 (35)	6 (55)	5 (45)	I (I0)	0 (0)		
Education level							
High school graduate or less	16 (44)	7 (64)	2 (18)	3 (30)	4 (100)	}	.01
Some college or more	20 (56)	4 (36)	9 (81)	7 (70)	0 (0)		
Living situation				. ,			
Lives with others	32 (89)	10 (91)	8 (73)	10 (100)	4 (100)	}	.2
Lives with no one	4 (H)	l (9)	3 (27)	0 (0)	0 (0)	-	

How common is hikikomori in Hong Kong? (Telephone Interview)



1.9%

17,000 – 41,000

Hikikomori in the Mainland China (SNS survey)

Asian Journal of Psychiatry 30 (2017) 175–176

Contents lists available at ScienceDirect

Asian Journal of Psychiatry

journal homepage: www.elsevier.com/locate/ajp

Letter to the Editor

Figure 1. Effectiveness funnel of Weibo.

Does hikikomori (severe social withdrawal) exist among young people in urban areas of China?



The situation of hikikomori (severe and prolonged social withdinternational concern. We agree with this observation and would China has experienced rapid development and many individu countries such as Japan. To examine the situation of hikikomori in

JMIR MENTAL HEALTH

Liu et al

Original Paper

Reaching the Hard-to-Reach Youth: Harnessing Social Media to Explore Youth Social Withdrawal in 3 Major Cities in China



Lucia Lin Liu¹, MSW, PhD; Tim MH Li², PhD; Alan R Teo^{3,4,5}, MS, MD; Takahiro A Kato⁶, MD, PhD; Paul WC Wong¹, PsyD (Clinical)

¹Department of Social Work and Social Administration, Faculty of Social Sciences, The University of Hong Kong, Hong Kong, China (Hong Kong)

²Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong, China (Hong Kong)

³VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC), 3710 SW US Veterans Hospital Rd (R&D 66), Portland, OR, United States

⁴Department of Psychiatry, Oregon Health & Science University,, Portland, OR, United States

⁵School of Public Health, Oregon Health & Science University and Portland State University, Portland, OR, United States

⁶Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan

Table 1. Survey administra	le 1. Survey administration procedure and distribution of responses.				
Media	Administration period	Additional remarks			
Weibo	Oct 19 to Oct 20, 2015	Charged by per 1000 impressions; because none of these impressions were transferred into responses, the advertising strategy was changed to the interaction rate from Oct 20 onwards			
	Oct 20, 2015, to May 20, 2016	Charged by per click of the link			
WeChat groups	Feb 2 to Feb 22, 2016	During the period of Chinese New Year, the survey information was posted on several WeChat groups.	43		
Wandianba website [22]	Apr 1 to Apr 30, 2016	The research team posted the survey information on several internet communication platforms that appeal to young people, including Mop, Hupu, Tianya, Baidu Tieba, and Wandianba. However, except for Wandianba, where the administrator approved the attempt to advertise the survey, other platforms immediately banned and deleted the messages posted	9		

ars to have distinctive features (Teo and Gaw, 2010). Hikikomori while physically isolated individuals suffer from developmental The findings provide further empirical support to Li and Wong's n more psychological difficulties (Li and Wong, 2015a) and Kato 1 the act of "shutting in" (pp.xx, in press in World Psychiatry). Study and the difficulty inherent in reaching socially withdrawn 11kikomori in China. We are concerned about the phenomenon in

Wong et al. 2017 Liu et a. 2018

Is hikikomori global?

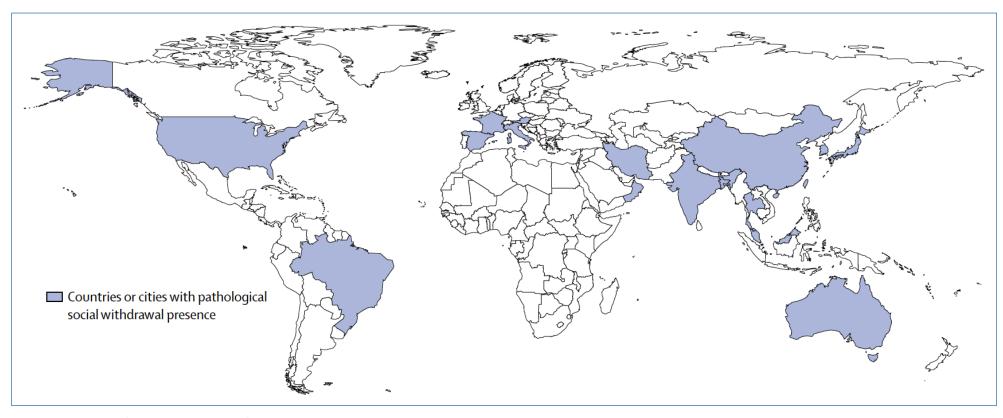


Figure: Presence of diagnosed cases of pathological social withdrawal in the world

(Wu et al. Lancet Psychiatry 2019)

D2 | Tuesday, January 27, 2015

HEALTH & WELLNESS

The Fight to Save Japan's Young Shut-Ins

大学病院 精神科神経科 ひきこもり外来 Hikikomori Research Clinic Kyushu University Hospital Fukuoka, Japan

hope to understand the social and binesses, Japanese experts say. Only

partment of Narcosofaluty, Kushu University

Professor Kato Takahiro runs a series of diagnostic exams during an interview for hikikomori and depression.

about half of those with the condition would be diagnosed with a disorder in the U.S. psychiatric diagnostic manual commonly known as DSM-5, according to one survey of 4,134 Japanese residents published in Psychiatry Research in 2010. But large-scale survey data on hikikomori remains limited.

Dr. Teo, an American fluent in Japanese, has treated several hikikomorilike patients in the U.S. In 2010 he published proposed diagnostic criteria for the condition. It reported that hikikomori's core feature is social isolation. People should suffer for at least six months and should be unhappy about the isolation before being diagnosed with the condition.

Japanese experts point to strict parenting practices and pressure that children feel to succeed as contribut-



Clinical and Research trial against Hikikomori/MTD in Kyushu Univ. (Fukuoka, Japan)

- Clarifying the biopsychosocial cause
- Development of evaluation tools (psychometrics and PC-oriented games)
 - Intervention Tool Development (Group psychotherapy, etc..)

Hikikomori supports/intervention/research network in Fukuoka, Japan





ひきこもり専門相談室 (月1回金曜) Kato visits Hikikomori support center once a month







Hikikomori Line (Phone) Web, e-mail Parents' actions

KHJ全国ひきこもり家族会 連合会福岡支部 福岡「楠の会」(親の会) Parents' network

福岡若者サポート ステーション

Support

Centers

NPO法人

JACFA

福岡市社会福祉協議会 Hikikomori

> 福岡市立心身障がい福祉センター あいあいセンター

福岡市こども総合相談センター

えがお館

福岡市発達障がい者支援センター ゆうゆうセンター

Individual counseling Group activities Parents' supports Job supports, etc..

福岡市精神保健福祉センタ

福岡市ひきこもり成年地域支援センター よかよかルーム

Fukuoka City Hikikomori Support Center

九州産業大学臨床心理センター

ワンド

福岡市生活自立支援センター

Recruitment Assessment Feedback

More than 100 cases introduced

Kyushu University Hospital (Kato's Hikikomori Clinic)



世界初・九州大学病院「ひきこもり」研究外来での活動概要



Are Japan's hikikomori and depression in young people spreading abroad?

Hikikomori, or severe social withdrawal, in Japan's young people has been a prominent public mental health concern since around 2000.1 Another, more recent, concern is a syndrome dubbed "modern-type depression". This catchy name has quickly and widely spread to the public via Japan's mass media and internet-related media, yet there is no consensus guideline for its diagnosis and treatment, which has led to confusion when dealing with the disorder in





世界初の国際HIKIKOMORIコンソーシアム会議 主催 (2021年2月6日WEB) 国際連携の重要性を認識

August 31, 2010 DOI:10.1015/50140-See Perspectives page 1065

Kato et al. *Lancet* 2011

ひきこもりが世界中に 拡がっていくことに警鐘 (ひきこもりの国際化を予測)



Hikikomori

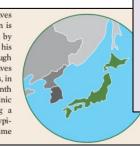
Mr X is a 40-year-old man who has spent half his life—the Arising, as it does for many, at the meeting poin

Lancet Psychiatry 2018 Jan

九大病院専門外来 がハイライトに紹介された A 39-Year-Old "Adultolescent": Understanding Social Withdrawal in Japan

Takahiro A. Kato, M.D., Ph.D., Shigenobu Kanba, M.D., Ph.D., Alan R. Teo, N

When asked why he rarely leaves his home, his primary explanation is that he does not want to be seen by others, particularly in light of his lack of accomplishments. Although the frequency with which he leaves home has fluctuated over the years, in general he leaves just once a month when he has an outpatient clinic appointment. He reports having a reversed sleep-wake cycle, and typically he is awake during the daytime



Kato, et al.

Am J Psychiatry

2016 Feb

甘え・高齢化8050問題

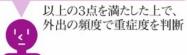
への対応提案

Defining pathological social withdrawal for hikikomori

Kato, et al. World Psychiatry 2020

九大発 診断法を 際標準として提案

- ①自宅にとどまり社会的に著しく孤立
- ②社会的孤立が少なくとも半年以上
- ③臨床的に意味のある苦痛、社会的、職業的 などの領域で機能障害を起こしている



度」=外出が週2~3回 「中等度」=外出が週1回以下 度」=外出が週1回以下で 自室からほとんど出ない

Strengthening the prevention/support system for Hikikomori is essential in the COVID-19 era

Forced social isolation due to COVID-19 and consequent mental health problems: Lessons from hikikomori

doi:10.1111/pcn.13112

The COVID-19 pandemic has forced a worldwide lockdown with huge numbers of citizens confined to their homes, ¹ often resulting in social isolation, which may lead to mental health problems. One of the best examples of consequences of severe social isolation is the condition known as hikikomori — a form of severe social withdrawal that was originally described in Japan in the late 20th century and has more recently been found worldwide.^{2–4} In the 2010 guideline on hikikomori by the Japanese Ministry of Health, Labour, and Welfare, the definition of hikikomori was described as an avoidance of social participation, which in principle has continued under the condition of being housebound for a period of more than 6 months.⁵



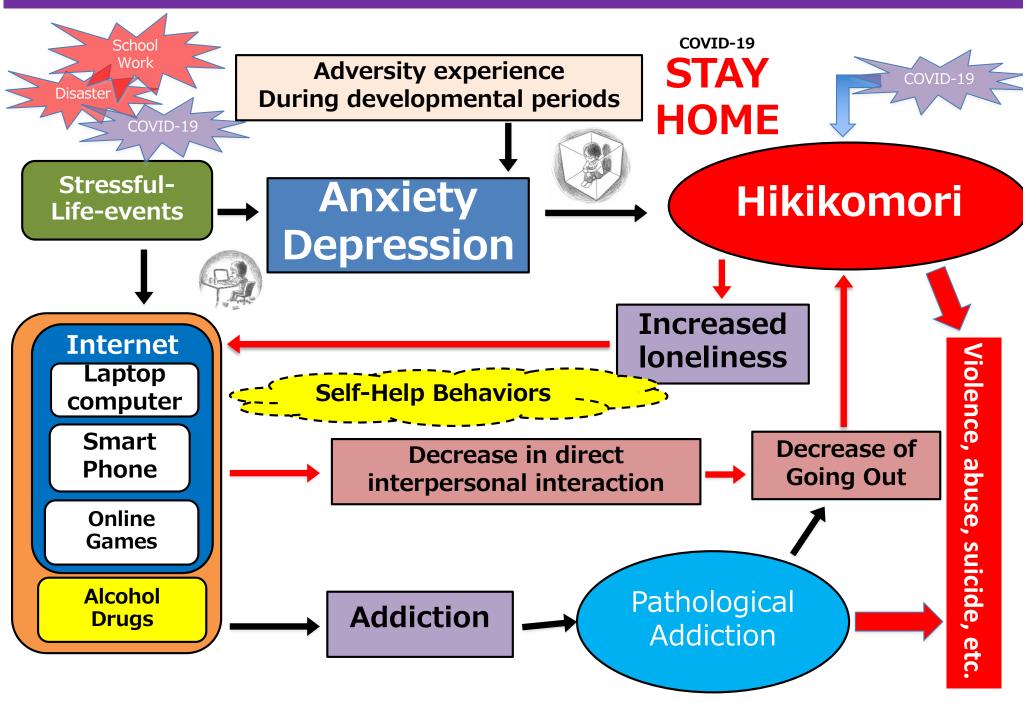
- Mamun MA, Griffiths MD. First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies. Asian J. Psychiatr. 2020; 51: 102073.
- Kubo H, Urata H, Sakai M et al. Development of 5-day hikikomori intervention program for family members: A single-arm pilot trial. Heliyon 2020; 6: e03011.

Takahiro A. Kato, MD, PhD , 1,2 Norman Sartorius, MD, PhD and Naotaka Shinfuku, MD, PhD Naotaka

COVID-19 may cause an explosion of Hikikomori globally.

(Kato TA, Sartorius N, Shinfuku N. Psychiatry Clin Neurosci 2020 July)

The vicious cycle of anxiety, depression, loneliness, and hikikomori

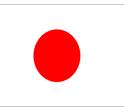


(Kato "Minna no Hikikomori" 2020: Curr Opin Psychiatry 2020, PCN 2020)

Do individuals with hikikomori have mental disorders?



Results: Most Common SCID-I and SCID-II Diagnoses



Diagnosis	Total N=22	%
Avoidant Personality Disorder	9	41%
Major Depressive Disorder	7	32%
Paranoid Personality Disorder	7	32%
Social Anxiety Disorder	6	27%
Posttraumatic Stress Disorder	6	27%

5 hikikomori persons (22%) only in Japan have no psychiatric diagnosis!!!

Modern-Type Depression as an "Adjustment" Disorder in Japan: The Intersection of Collectivistic Society Encountering an Individualistic Performance-Based System

Takahiro A. Kato, M.D., Ph.D., Shigenobu Kanba, M.D., Ph.D.

Mr. A's academic success and sent him to cram school from an early age. He participated in school sports clubs but spent the majority of his time playing video games. He was never enthusiastic about academics but did relatively well. After high school, he entered a well-known university and

started to live alone. He had no specific aspirations in life, but, following others, he applied to some well-known companies. He accepted a job at a company that "happened to" offer him a career-track position.

For a few years, he did relatively well under a good mentor who guided him. In his fifth year, he was reassigned to a new division, where he was often required to express his own opinion, which he found difficult. His supervisor scolded him sharply at times, which is not uncommon in Japan but which left

Mr. feeling unhappy and dissatisfied. Having been an A student, this was virtually the first time he had received a stern reprimand. He started experiencing headache, angst, and insomnia, and he frequently arrived late or was absent for work. He himself suspected depression and sought help at a psychosomatic medicine clinic, expressing his wish to take leave from work. His doctor granted a 3-month sick leave for "depressive state."

Immediately, Mr. A felt well and would sometimes attend parties with coworkers, which led them to doubt whether he actually had depression. He also complained that his and started complaining to Mr. A about not helping around the house, he began having difficulty being at home, experiencing headaches and lethargy. Around this time, he was reassigned again and was reprimanded by his new supervisor, triggering a feeling of heaviness

and distress at work. He soon began skipping work again.

He voluntarily returned to the clinic, where he was diagnosed with "adjustment disorder." He took leave and returned to work after several months, but similar episodes recurred. Given that his mental problem was situation dependent, his reputation at work and home suffered. He sought care at several mental health clinics, which mainly diagnosed "adjustment disorder" or "depressive state," although some overdiagnosed his illness as major

depression and prescribed selective serotonin reuptake inhibitors, but with poor pharmacological outcome. At one clinic, he started group therapy to improve his interpersonal skills, but he soon quit, complaining that all the other participants were elderly. Eventually, he participated in a groupcentered "Re-Work" program (see the discussion below). Being with others in similar situations helped Mr. A realize that he "could not blame everything on the company." He is now able to lead a relatively uneventful working life without extended leave even though he sometimes skips work when he experiences excessive stress.



Japan has recently seen an increase in cases similar to that of Mr. A, especially among young adults, a syndrome referred to as "modern-type depression" (MTD) (1). Characteristics of

MTD include situation-dependent depressive state, blaming others, and strong avoidant tendencies (2, 3). Individuals with MTD display absenteeism from work or school, complaining

Modern-Type depression
(MTD)
among youth
may be a
"GATEWAY Disorder"

toward Hikikomori.

Modern Depression

Hikikomori





Prolonged Social Avoidance



Depressed Feelings
Only At School/Workplaces

(Kato & Kanba, Am J Psychiatry, 2017 Nov & 2018 May)

Location of Hikikomori in Psychiatry

Biological Aspects of Hikikomori



OPEN:

Received: 27 November 2017

Accepted: 31 January 2018

Published online: 13 February 2018

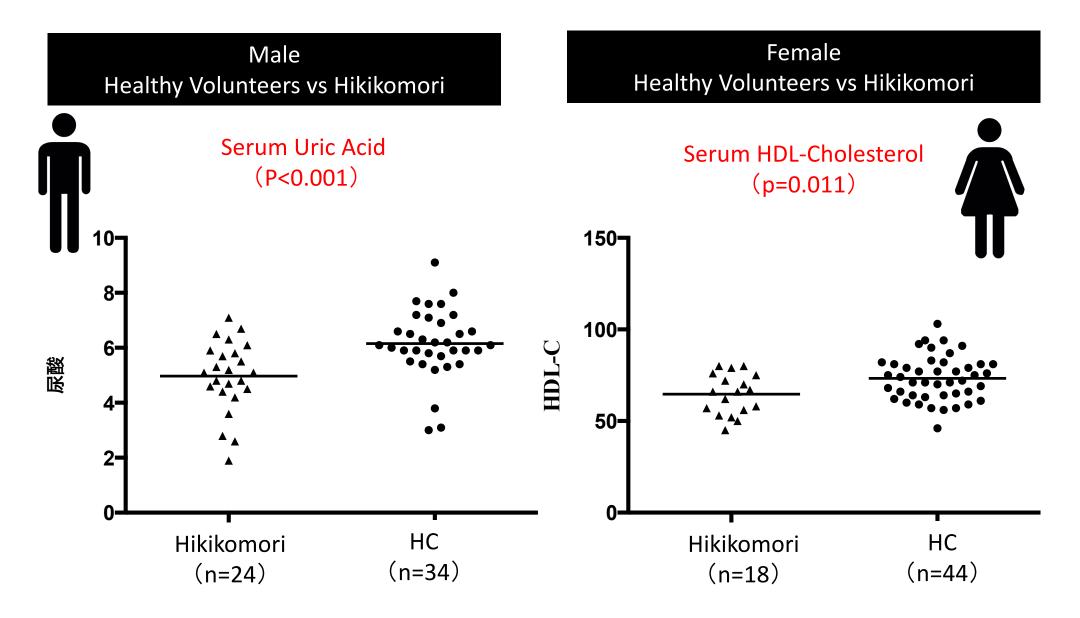
Blood biomarkers of Hikikomori, a severe social withdrawal syndrome

Kohei Hayakawa¹, Takahiro A. Kato¹, Motoki Watabe², Alan R. Teo^{3,4}, Hideki Horikawa¹, Nobuki Kuwano¹, Norihiro Shimokawa¹, Mina Sato-Kasai¹, Hiroaki Kubo¹, Masahiro Ohgidani¹, Noriaki Sagata¹, Hiroyuki Toda⁵, Masaru Tateno⁶, Naotaka Shinfuku⁷, Junji Kishimoto⁸ & Shigenobu Kanba¹

Hikikomori, a severe form of social withdrawal syndrome, is a growing social issue in Japan and internationally. The pathophysiology of hikikomori has not yet been elucidated and an effective treatment remains to be established. Recently, we revealed that avoidant personality disorder is the most common comorbidity of hikikomori. Thus, we have postulated that avoidant personality is the personality underpinning hikikomori. First, we herein show relationships between avoidant personality traits, blood biomarkers, hikikomori-related psychological features, and behavioural characteristics assessed by a trust game in non-hikikomori volunteers. Avoidant personality traits were negatively associated with high-density lipoprotein cholesterol (HDL-C) and uric acid (UA) in men, and positively associated with fibrin degeneration products (FDP) and high sensitivity C-reactive protein (hsCRP) in women. Next, we recruited actual individuals with hikikomori, and compared avoidant personality traits, blood biomarkers, and psychological features between individuals with hikikomori and agematched healthy controls. Individuals with hikikomori had higher avoidant personality scores in both sexes, and showed lower serum UA levels in men and lower HDL-C levels in women compared with healthy controls. This is the first report showing possible blood biomarkers for hikikomori, and opens the door to clarify the underlying biological pathophysiology of hikikomori.

ひきこもり者の the do 初の生物学的エビデンス

Uric Acid (UA) and HDL-C (Possible Biomarkers of Hikikomori)





Intervention of Hikikomori



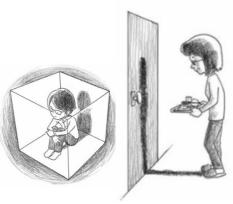
Huge GAP between Sufferers and Support Centers

Hikikomori Support Centers Hospitals / Clinics

Hikikomori Support is Very Difficult!!

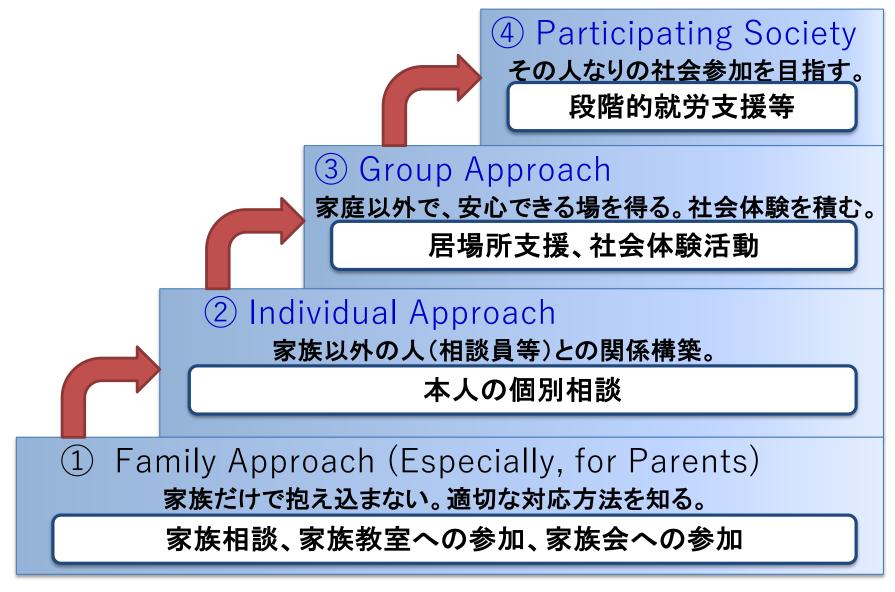
- Average of "Start support" after the onset of hikikomori is about 4.4 years. (Kondo, et al. 2010)
- Thus, the Japan's Cabinet Office's Guideline of Hikikomori (2010) empathized the importance of Early Detection and Early Intervention of Hikikomori.
- Each hikikomori support center (more than 60 centers in each prefecture and main larger cities in Japan) have tried to develop the system, using phone counseling (HIKIKOMORI LIFE LINE), etc.





No standardized intervention methods have been developed.

Step-By-Step therapeutic approaches against hikikomori



Modified from the Hikikomori Guideline published by Japan's Governmental Office 2010

ひきこもり家族支援プログラム開発 Development of **Educational/Training Program** for Parents of Hikikomori based on MHFA (Mental Health First Aid)

国立研究開発法人日本医療研究開発機構(AMED)・障害者対策総合研究開発事業 「社会的ひきこもりの長期化打開のためのエビデンスに基づく家族向け教育支援モデルの構築」

Development of Educational/Training Program for Parents of Hikikomori

based on

MHFA (Mental Health First Aid)

@ Kyushu University Hospital

Funded by AMED, Japan





Mental Health First Aid Action Plan

Approach the person, assess and assist with any crisis

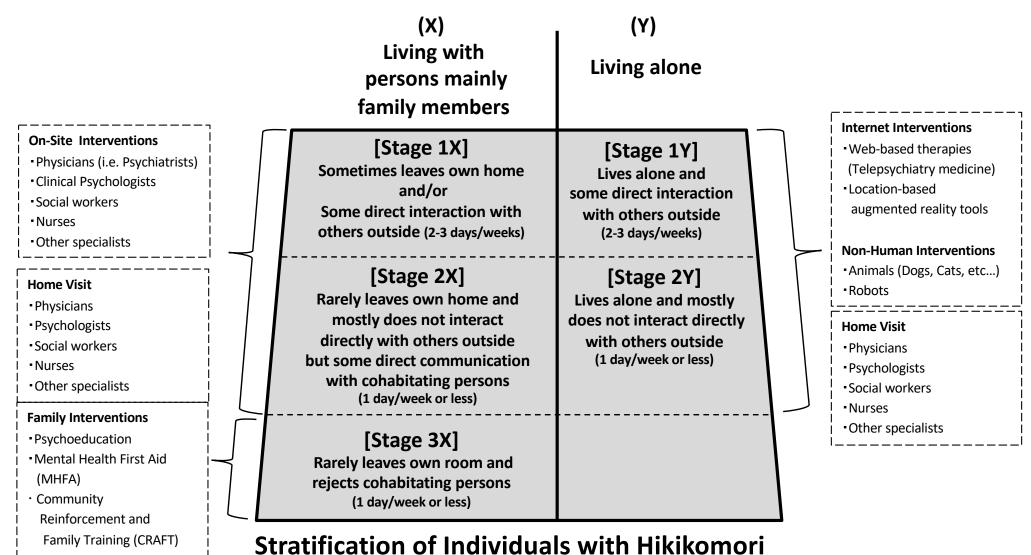
Listen and communicate non-judgmentally

Give support and information

Encourage the person to get appropriate professional help

Encourage other supports

Multidimensional Therapeutic Approaches Based on the Physical/Social Situation of Hikikomori





Innovative Approach against Hikikomori

Dogs and/or Cats rescue individuals with hikikomori?



(This project has been organized by Prof. Paul Wai-Ching WONG.)



Future perspectives of robot psychiatry: can communication robots assist psychiatric evaluation in the COVID-19 pandemic era?

Can Robots rescue shut-ins?

Yuichiro Yoshikawa^{a,*}, Hirokazu Kumazaki^{b,c,d,*}, and Takahiro A. Kato^{e,f}







View from the Eye of OriHime (iPhone, iPad and online PC)

- Not observed/seen from others (Shadowing)
- 2. Verbal Communication with Mic
- 3. Non-Verbal Communication with Buttons

Metaverse (avatars) rescue hikikomori?



Metaverse Project (Fukuoka-Prefecture)

JACFA-Job Support Station (Directors: Ms Michiko Asami/Ms Kumiko Asami)

Yamaguchi University (Prof. Yuko Hayashi)

Digital Hollywood University (Prof. Keiji Mitsubuchi)

Kyushu University (Takahiro A. Kato)

Possible solution against Shame (恥) with persons with hikikomori

Summary

What is Hikikomori

Japan and Worldwide



Understanding Hikikomori (Hikikomori Research Clinic)

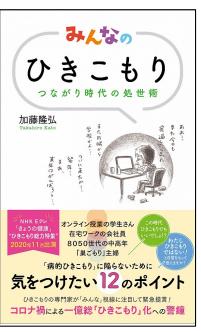
Psychological, Sociocultural and Biological Aspects

Intervention of Hikikomori

- Step by Step Approach (Multi-dementional Model)
- Family Intervention (MHFA-based)
- Novel approach (Robots and <u>Avatars</u>)







https://www.hikikomori-lab.com/

(Minna no Hikikomori, 2021)