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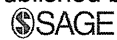
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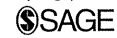
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What is This?

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

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## Abstract

**Background:** Hikikomori, a form of social withdrawal first reported in Japan, may exist globally but cross-national studies of cases of hikikomori are lacking.

**Aims:** To identify individuals with hikikomori in multiple countries and describe features of the condition.

**Method:** Participants were recruited from sites in India, Japan, Korea and the United States. Hikikomori was defined as a 6-month or longer period of spending almost all time at home and avoiding social situations and social relationships, associated with significant distress/impairment. Additional measures included the University of California, Los Angeles (UCLA) Loneliness Scale, Lubben Social Network Scale (LSNS-6), Sheehan Disability Scale (SDS) and modified Cornell Treatment Preferences Index.

**Results:** A total of 36 participants with hikikomori were identified, with cases detected in all four countries. These individuals had high levels of loneliness (UCLA Loneliness Scale  $M = 55.4$ ,  $SD = 10.5$ ), limited social networks (LSNS-6  $M = 9.7$ ,  $SD = 5.5$ ) and moderate functional impairment (SDS  $M = 16.5$ ,  $SD = 7.9$ ). Of them 28 (78%) desired treatment for their social withdrawal, with a significantly higher preference for psychotherapy over pharmacotherapy, in-person over telepsychiatry treatment and mental health specialists over primary care providers. Across countries, participants with hikikomori had similar generally treatment preferences and psychosocial features.

**Conclusion:** Hikikomori exists cross-nationally and can be assessed with a standardized assessment tool. Individuals with hikikomori have substantial psychosocial impairment and disability, and some may desire treatment.

## Keywords

Social isolation, cross-national, culture

## Introduction

The notion of hermits and recluses has existed in many cultures for time immemorial. However, in recent years a

particularly severe syndrome of social withdrawal first identified in Japan has garnered the interest of researchers

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and the lay public alike. Called hikikomori, it has been defined as 'a phenomenon in which persons become recluses in their own homes, avoiding various social situations (e.g., attending school, working, having social interactions outside of the home, etc.) for at least six months' (Saito, 2010). Individuals with hikikomori are frequently reported to have social contact predominantly via the internet and some reports suggest overlap with heavy internet use (De Michele, Caredda, Delle Chiaie, Salviati, & Biondi, 2013; Lee, Lee, Choi, & Choi, 2013). An estimated 232,000 Japanese currently suffer from hikikomori, and 1.2% of community-residing Japanese between ages 20–49 have a lifetime history of hikikomori (Koyama et al., 2010). A combination of a shy personality, ambivalent attachment style and life experiences including rejection by peers and parents – among other factors – may promote the development of hikikomori (Krieg & Dickie, 2011). Furthermore, scientific studies point to genetic and other biological influences on sociality that, although not specific to hikikomori, could have implications for the study of the etiology of hikikomori (Meyer-Lindenberg & Tost, 2012). While researchers debate the merits of hikikomori as a psychiatric diagnosis (Teo & Gaw, 2010), practicing clinicians in Japan indicate they view hikikomori as a 'disorder' (Tateno, Park, Kato, Umene-Nakano, & Saito, 2012).

Previous reports suggest hikikomori may exist outside of Japan. For instance, case reports have described the presence of hikikomori in several other countries (Furuhashi et al., 2012; Garcia-Campayo, Alda, Sobradie, & Sanz Abos, 2007; Sakamoto, Martin, Kumano, Kuboki, & Al-Adawi, 2005; Teo, 2013). When presented with vignettes of hikikomori, psychiatrists from nine countries around the world indicated that such cases existed in their clinical practices (Kato et al., 2012). Nonetheless, cross-national studies designed to identify hikikomori have been lacking. Reasons for the lack of recognition have included ambiguity about the features of hikikomori (Tateno et al., 2012; Watts, 2002), and inconsistent or insufficiently detailed definitions of hikikomori (Furuhashi et al., 2011; Garcia-Campayo et al., 2007; Sakamoto et al., 2005). This has caused concern that researchers may not be referring to the same phenomenon. We have previously proposed a research-grade definition of hikikomori, but this definition has not been empirically tested (Teo & Gaw, 2010). Additionally, prior reports of hikikomori have focused on assessment of psychopathology (Lee et al., 2013; Nagata et al., 2013) but fewer studies – especially outside of Japan – have examined psychosocial features more broadly, despite the common belief that sociocultural factors are important contributors to hikikomori (Kato et al., 2012). Finally, prior research has examined treatment recommendations for hikikomori by psychiatrists, but we are unaware of studies that have explored patients' treatment preferences (Kato et al., 2012).

## Aims

1. To identify cases of hikikomori cross-nationally;
2. To describe the psychosocial features and treatment preferences of individuals with hikikomori;
3. To explore possible differences in psychosocial features and treatment preferences of individuals with hikikomori across countries.

In this study, we examined individuals with social withdrawal using such a standardized definition of hikikomori cross-nationally.

## Method

### Design

We conducted a cross-national case series in India, Japan, South Korea and the United States.

### Study participants

Participants who had a history of or current social withdrawal were recruited. Indian participants were referred from psychiatric outpatient clinics. Japanese and Korean participants were referrals from either a hospital or community mental health center. At the US site, participants responded to an online advertisement. All participants were adults between the ages of 18 and 39, noninstitutionalized and fluent in the local language of their respective site (English used in India). Participants with a self-reported history of schizophrenia, dementia, mental retardation or autism spectrum disorders and participants with social withdrawal due to a chronic physical illness or injury were excluded. A total of 108 individuals were screened for eligibility, with 26 excluded for not meeting criteria for hikikomori, 18 for age, 2 for schizophrenia, 1 with an autism spectrum disorder and 6 who withdrew consent. This left 55 (51%) who met initial eligibility criteria. An additional 18 individuals did not complete consent or study measures and 1 was excluded for later reporting a history of schizoaffective disorder, leaving a final sample of 36 for analysis. Participants were compensated US\$50 or equivalent in local currency. This study was approved by the institutional review boards of each participating site. All participants provided written informed consent for participation.

### Measures

*Assessment of hikikomori.* Researchers administered an interview to assess for the presence of suspected hikikomori (see Appendix 1 for questionnaire), adapted from our earlier proposed definition (Teo & Gaw, 2010). We defined hikikomori as (1) spending most of the day and nearly every day at home (duration of at least 6 months);