

Youth social withdrawal behavior (hikikomori): A systematic review of qualitative and quantitative studies

Australian & New Zealand Journal of Psychiatry
2015, Vol. 49(7) 595–609
DOI: 10.1177/0004867415581179

© The Royal Australian and
New Zealand College of Psychiatrists 2015
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
anp.sagepub.com



Tim MH Li and Paul WC Wong



Abstract

Objective: Acute and/or severe social withdrawal behavior among youth was seen as a culture-bound psychiatric syndrome in Japan, but more youth social withdrawal cases in different countries have been discovered recently. However, due to the lack of a formal definition and diagnostic tool for youth social withdrawal, cross-cultural observational and intervention studies are limited. We aimed to consolidate existing knowledge in order to understand youth social withdrawal from diverse perspectives and suggest different interventions for different trajectories of youth social withdrawal.

Method: This review examined the current available scientific information on youth social withdrawal in the academic databases: ProQuest, ScienceDirect, Web of Science and PubMed. We included quantitative and qualitative studies of socially withdrawn youths published in English and academic peer-reviewed journals.

Results: We synthesized the information into the following categories: (1) definitions of youth social withdrawal, (2) developmental theories, (3) factors associated with youth social withdrawal and (4) interventions for socially withdrawn youths. Accordingly, there are diverse and controversial definitions for youth social withdrawal. Studies of youth social withdrawal are based on models that lead to quite different conclusions. Researchers with an attachment perspective view youth social withdrawal as a negative phenomenon, whereas those who adopt Erikson's developmental theory view it more positively as a process of seeking self-knowledge. Different interventions for socially withdrawn youths have been developed, mainly in Japan, but evidence-based practice is almost non-existent.

Conclusion: We propose a theoretical framework that views youth social withdrawal as resulting from the interplay between psychological, social and behavioral factors. Future validation of the framework will help drive forward advances in theory and interventions for youth social withdrawal as an emerging issue in developed countries.

Keywords

Youth social withdrawal, hikikomori, contemporary youth issue, attachment, psychosocial development

Introduction

An increasing volume of anecdotal evidence suggests that the phenomenon of young people who seclude themselves in their rooms, do not attend school or work and have minimal social contact is becoming prevalent in many developed countries and high-income societies (Kato et al., 2011). Similar contemporary youth phenomena have been named and conceptualized between cultures; for instance, 'freeter', 'otaku' and 'hikikomori' are Japanese expressions, respectively, referring to people who are not in full-time employment, value manga and the virtual world above reality, and confine themselves at home for long periods

(Heinze and Thomas, 2014); 'NEET' (Not in Education, Employment, or Training) was first used in the United Kingdom to represent young people not in employment,

Department of Social Work and Social Administration, The University of Hong Kong, Hong Kong, China

Corresponding author:

Paul WC Wong, Department of Social Work and Social Administration, The University of Hong Kong, Rm 511, Jockey Club Teaching Tower, The Centennial Campus, Pokfulam Road, Hong Kong 00000, China.
Email: paulw@hku.hk

education or training (Bynner and Parsons, 2002); ‘slacker’, ‘twixter’ and ‘adulthood’ describe young people in the United States living with their parents who do not embrace independence (Staff, 2013); and ‘NEY’ (Non-Engaged Youth) in Hong Kong refers to the non-engaged youth, young people who are unemployed and not pursuing further studies (Wong, 2012).

Youth social withdrawal behavior is being seen not only as a social issue but also as a psychiatric issue (Kato et al., 2012). It is because the essential feature of hikikomori is social withdrawal or isolation; hence, many psychiatric professionals tend to concur that this acute and/or severe form of social withdrawal behavior is a manifestation of a number of psychiatric disorders listed in the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders* (DSM), including schizophrenia, posttraumatic stress disorder, social anxiety disorder, major depressive disorder, schizoid personality disorder and avoidant personality disorder. However, Teo and Gaw (2010) suggested that a notable subset of the clinical cases they reviewed had substantial psychopathology that did not meet the criteria for any of the existing psychiatric disorders listed in the DSM; hence, they suggested that severe social withdrawal behavior could be considered as a new psychiatric disorder in a future DSM.

The prevalence of youth social withdrawal behavior

Two observational studies estimated that 1.2% of a community population in Japan (around 232,000 people) had experienced youth social withdrawal (Koyama et al., 2010) and 1.9% of young people in Hong Kong were socially withdrawn youths (around 16,900–41,000; Wong et al., 2014). A less representative study by Lee et al. (2013) suggested that 2.3% of high school students had been found to experience the state of social withdrawal in Korea. Nevertheless, cross-cultural studies are difficult to conduct, and reliable data for understanding youth social withdrawal and its impact on societies are scarce (Furlong, 2008). One of the major barriers to study this phenomenon is the heterogeneity of youth social withdrawal since youths can withdraw in different ways with different reasons, and there is no consensus on the definition or diagnostic criteria for youth social withdrawal in this field of study (Furlong, 2008; Lee et al., 2013; Wong, 2009).

The diversified views on the issue

With the controversial understanding on youth social withdrawal and its oversimplified and, most probably, skewed portrayal in the media as an emerging youth issue, the concept of youth social withdrawal nowadays has become very diversified (Kato et al., 2011; Watts, 2002). For instance, while psychiatrists have viewed youth social withdrawal as

an illness that requires medication and hospitalization (Kato et al., 2012), some sociologists have described it as another social issue of youths, such as NEETs, without economic status (Furlong, 2008) or as a radical version of *otaku*, a Japanese term for people with obsessive interests, commonly the anime and manga fandom (Heinze and Thomas, 2014). Some researchers have also found and suggested that withdrawal from society is a preferred lifestyle of young people, and the longer they withdraw, the better their quality of life as long as social support is available, and hence, the issue should not be regarded as a problem (Chan and Lo, 2013). In other words, because of the diversified views on helping these young people, some, if not many, of the vulnerable ones may not have the opportunity to be identified and helped with appropriate interventions and may even suffer from social stigma (Horiguchi, 2012). Therefore, a review and a consolidated framework for advancing the development of the field are needed.

The aims of the study

As far as we know, there is only one review on this topic, which focused on research studies that were conducted solely in Japan (Teo and Gaw, 2010). The current review aims to (1) summarize the existing information from previous studies conducted in Japan and elsewhere and (2) synthesize the major findings of observational, intervention, quantitative and qualitative studies to provide more understanding of youth social withdrawal, identify research gaps and propose future directions for research in the field. On the basis of the findings of the review, we will propose a conceptual framework of youth social withdrawal that will help to consolidate existing knowledge in order to understand youth social withdrawal from diverse perspectives and suggest different interventions that may help socially withdrawn youths with different trajectories.

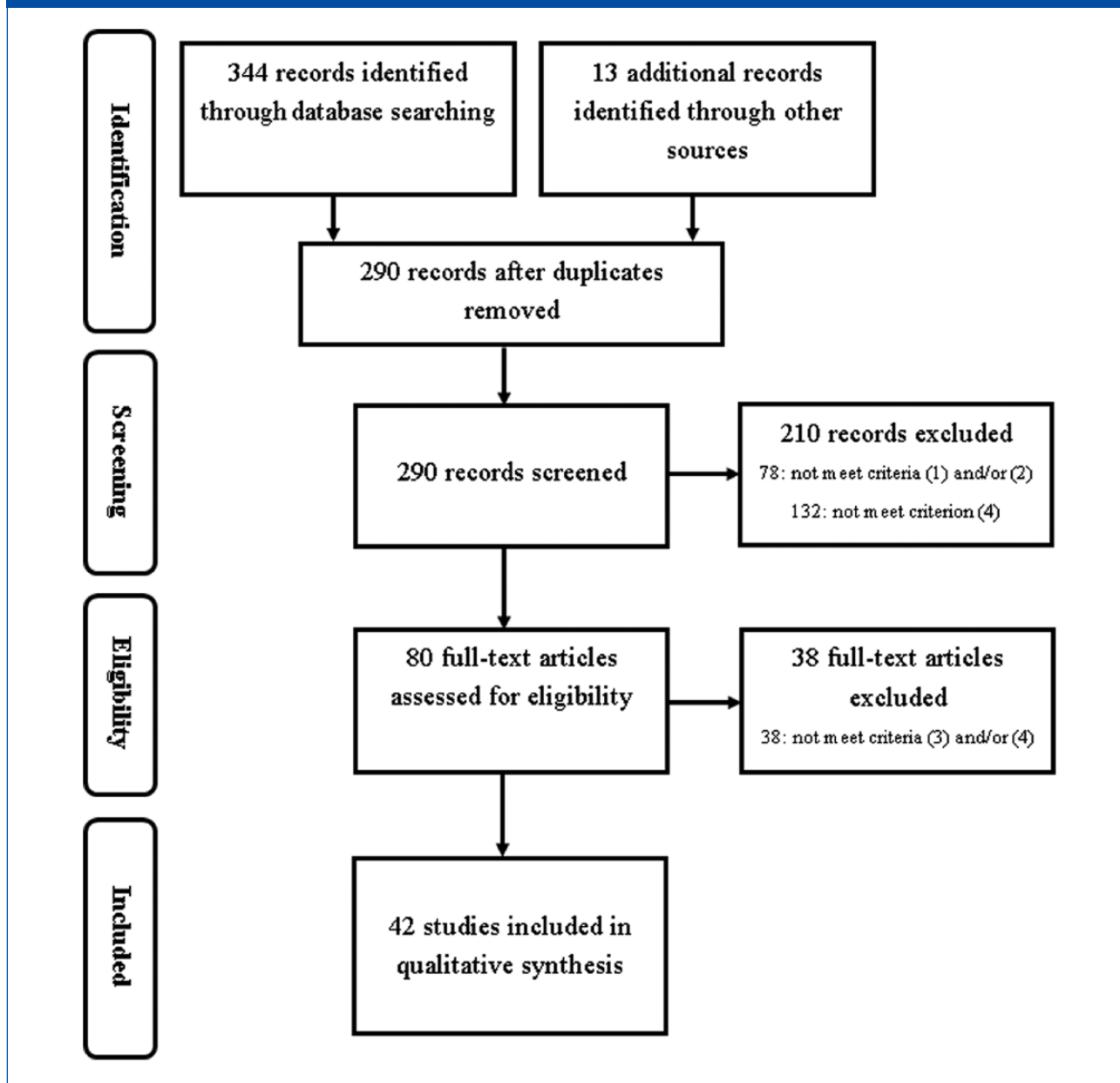
Methods

Systematic literature search

The review was carried out following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). The identification of articles was conducted in February 2015 by searching the following online academic databases for all years: ProQuest, ScienceDirect, Web of Science and PubMed. The following keywords were used in the search strategy: ‘youth social withdrawal’ OR ‘hikikomori’ OR ‘severe social withdrawal’ OR ‘acute social withdrawal’ OR ‘protracted social withdrawal’ OR ‘prolonged social withdrawal’ OR ‘primary social withdrawal’ OR ‘hidden youth’ OR ‘socially withdrawn youth’.

The search yielded 143 results in ProQuest, 112 results in ScienceDirect, 41 results in Web of Science and

Figure 1. Flow diagram of the systematic literature search illustrating the flow of information through the different phases of the review and mapping out the number of records identified, included and excluded.



48 results in PubMed. After the initial search, the reference lists of the included articles and the journals, such as *Psychiatry and Clinical Neurosciences* and *The International Journal of Social Psychiatry*, which frequently publish related articles, were reviewed with the aim of identifying extra academic peer-reviewed journal articles for inclusion. A total of 13 articles were further identified by a hand search. There were 67 duplications. Therefore, the search yielded 290 unique results in total (see Figure 1).

The articles were reviewed using the following inclusion/exclusion criteria: (1) the article, which is either a

research paper or a review paper but not letter or commentary, being published in an academic peer-reviewed journal; (2) the article is written in English; (3) the article examines youth social withdrawal and provides its definition of youth social withdrawal; and (4) the article relates to a qualitative or quantitative study or review specifically on the youth social withdrawal phenomenon. The rationale for including all study types, both qualitative and quantitative research, was that youth social withdrawal is a relatively new area of study; hence, limiting to either quantitative or qualitative may result in a small number of retrieved articles and provide a biased perspective.

Applying these criteria to the titles and abstracts for screening, 210 of the 290 articles were excluded from the research. First, 78 were excluded because they did not meet criteria (1) and/or (2). Second, 132 were excluded because they did not meet criterion (4) in terms of study relevance: 8 focused on arts and humanities such as cinema, media cultures and religion; 48 discussed physical illnesses and biological experiments; 41 investigated specific forms of mental disorder such as posttraumatic stress disorder, mental retardation and schizophrenia; and 35 presented political issues and training, welfare and service evaluations.

The remaining 80 articles were related to potentially relevant topics such as social isolation, social networks, social functioning, social issues mostly in Japan and contemporary youth issues such as NEET. The full text of the 80 articles was further assessed for eligibility, and 38 were excluded because they did not meet criteria (3) and/or (4). When we investigated the Methods sections in the articles that mentioned the keywords in the search queries, youth social withdrawal was used as example, but no formal definition or investigation of youth social withdrawal was provided. Thus, 42 articles were included in the review.

Data extraction and analysis

The following information was extracted from each article: (1) type of study, (2) type of participants, (3) total number of participants, (4) mean age of the sample and (5) ethnicity of the participants in the sample. Following the data extraction, the data were tabulated to create a descriptive synthesis of the included articles (see Table 1).

Codes initially devised by the authors were included in the analysis of about one-fourth of the included articles (11 articles). The 11 articles were coded as follows: definition of youth social withdrawal; environment, school, family and online community of socially withdrawn youths; and the treatment of socially withdrawn youths. The 11 articles were compared. The findings were reviewed multiple times and compared with the remaining 31 articles for the development of new codes. As the analysis proceeded, new codes emerged, including clinical and institutional definitions and the social construction of youth social withdrawal; the social skills, predispositions, features and recovery of socially withdrawn youths; cultures, social structures and labor markets; family background and parenting styles; academic and school peers; and treatment features. Once all of the articles had been reviewed, compared and coded for major findings, the codes were re-examined for specificity. Additional rounds of read-throughs and comparisons were conducted until it was determined that the codes best reflected the emergent categories in the literature on youth social withdrawal. The emergent categories are (1) definitions of youth social withdrawal, (2) developmental theories, (3) factors associated with youth social withdrawal and (4) interventions for socially withdrawn youths. A

synthesis of the findings and their significance in each category will be described.

Category (I): definitions of youth social withdrawal

Clinical definitions

To investigate youth social withdrawal from the clinical perspective and whether hikikomori can be regarded as a new psychiatric disorder, researchers have divided hikikomori into two categories: primary hikikomori and secondary hikikomori (Kato et al., 2012; Suwa and Suzuki, 2013). Primary hikikomori is not associated with any psychiatric disorder, while secondary hikikomori is caused by one of the currently recognized psychiatric disorders. The advantage of categorizing cases as secondary hikikomori is that existing psychiatric diagnoses and treatment can be provided to socially withdrawn youths (Wong, 2009). However, there is inconsistency around which psychiatric disorders were considered to exclude a diagnosis of primary hikikomori.

Although the Japanese government's official guidelines published in 2003 proposed a diagnostic criterion that hikikomori has no signs of schizophrenia or any other known psychopathologies (Ministry of Health, Labour and Welfare, 2003), among the five included articles modifying the guidelines to define hikikomori, only three excluded all psychiatric disorders (Suwa and Suzuki, 2013; Teo, 2010; Teo and Gaw, 2010). Although the five articles excluded individuals with schizophrenia from the hikikomori category, two articles using the guidelines revised in 2010 (Ministry of Health, Labour and Welfare, 2010) admitted that '*patients [with] schizophrenia may be mixed in it (hikikomori) till [they have] received the diagnosis of psychosis*' (Kondo et al., 2013: 81). It seems that researchers and clinicians have not reached a consensus on what psychiatric disorders co-morbid with youth social withdrawal behavior should be included and excluded in their studies.

Operational definitions

Social connectedness. Researchers generally agree that socially withdrawn youths are detached from the social structure. For example, all of the five included articles referencing the Japanese government's guidelines in 2003 agreed that the socially withdrawn youths in their studies did not go to school or work. However, two articles further suggested that socially withdrawn youths avoid all social activities (Hattori, 2006; Suwa and Suzuki, 2013).

Regarding social relationships, researchers have also held different perspectives on youths' connections with others. Since the Japanese government's guidelines did not specify the social relationships of socially withdrawn youths, among the five articles, three considered that

Table 1. Summary of included articles.

Included article	Type of study	Type of participants	Total number of participants ^a	Mean age of sample ^a	Ethnicity of participants
Qualitative studies					
Ogino (2004)	Ethnographic study	Hikikomori	45	N/A	Japanese
Sakamoto et al. (2005)	Case study	Hikikomori	1	24	Omani
Hattori (2006)	Case series	Hikikomori	35	21.5	Japanese
Kaneko (2006)	Ethnographic study	Hikikomori	N/A	N/A	Japanese
Wong (2009)	Focus group	Social worker	10	N/A	Chinese
Todd (2011)	Interview	N/A	N/A	N/A	Japanese
Chong and Chan (2012)	Case study	Hikikomori	1	25	Chinese
Wong (2012)	Focus group and interview	Hidden youth, social worker	30, 10	N/A	Chinese
Itoh (2012)	Life history analysis	Hikikomori	5	N/A	Japanese
Teo (2012)	Case report	Hikikomori	1	30	American
Ovejero et al. (2013)	Case report	Hikikomori	1	25	Spanish
Chan and Lo (2014b) ^b	Interview	Hidden youth	42	N/A	Chinese
Quantitative studies					
Masataka (2002)	Cross-sectional study	Preschool children	200	4.3	Japanese
Suwa et al. (2003)	Case series	Hikikomori, comparison	27, 20	28.7, 30.4	Japanese
Koyama et al. (2010)	Cross-sectional study	Community residents	1660	N/A	Japanese
Uchida (2010)	Longitudinal study	University students	390, 526	N/A	Japanese
Umeda and Kawakami (2012)	Cross-sectional study	Hikikomori, all sample	15 (weighted 9.7), 708	36.3, 30.1	Japanese
Kato et al. (2012)	Cross-sectional study	Psychiatrists	239	27.7–44.8	Multiple nationalities
Tateno et al. (2012)	Cross-sectional study	Health professionals	1038	N/A	N/A
Lee et al. (2013)	Evaluation of intervention	Socially withdrawn youth, comparison	41, 239	16.4, 16.3	Korean
Chan and Lo (2013)	Cross-sectional study	Hidden youth	588	N/A	Chinese
Nagata et al. (2013)	Case series	Hikikomori, SAD diagnosed patients	27, 114	27.4, 29.2	Japanese
Krieg and Dickie (2013)	Cross-sectional study	Hikikomori, comparison	24, 60	22.8, 20.6	Japanese
Kondo et al. (2013)	Cross-sectional study	Hikikomori	337	24.3	Japanese
Chan and Lo (2014b) ^b	Cross-sectional study	Hidden youth	363	21.1	Chinese
Wong et al. (2014)	Cross-sectional study	Socially withdrawn youth, comparison	44,996	20.8	Chinese
Teo et al. (2014)	Case series	Hikikomori	36	N/A	Multiple nationalities

(Continued)

Table 1. (Continued)

Included article	Type of study	Type of participants	Total number of participants ^a	Mean age of sample ^a	Ethnicity of participants
Chan and Lo (2014a)	Cross-sectional study	Hidden youth	357	N/A	Chinese
Norasakkunkit and Uchida (2014)	Cross-sectional study	University students	195	20.2	Japanese
Funakoshi and Miyamoto (2014)	Cross-sectional study	Parents of hikikomori	110 (55 couples)	Father: 63.5; mother: 59.4	Japanese
Malagón-Amor et al. (2014)	Cross-sectional study	Hikikomori	164	40	Spanish
Others					
Suwa and Hara (2007)	Expert opinion				
Borovoy (2008)	Expert opinion				
Furlong (2008)	Expert opinion				
Wilson (2010)	Expert opinion				
Teo and Gaw (2010)	Review				
Teo (2010)	Clinical review				
Toivonen et al. (2011)	Expert opinion				
Rosenthal and Zimmerman (2012)	Expert opinion				
Suwa and Suzuki (2013)	Expert opinion				
Heinze and Thomas (2014)	Expert opinion				
Chan and Lo (2014c)	Review				
Baek (2014)	Expert opinion				

SAD: social anxiety disorder.

The table summarizes the included articles by study type (qualitative study, quantitative study and others) and years of study (2002–2014).

^aN/A: information not provided in the article.

^bThe article is a mixed methods research; hence, it is listed under both qualitative and quantitative studies in the table.

socially withdrawn youths ‘do not maintain personal relationships’ (Nagata et al., 2013; Teo, 2010; Teo and Gaw, 2010), while others believed that they have ‘no intimate relationships’ with others besides family members (Hattori, 2006) and ‘no close friends’ (Suwa and Suzuki, 2013). However, it is possible that socially withdrawn youths have close friends but do not maintain contact with them during social withdrawal or that these youths do not have any close friends but maintain personal relationships with others, such as online friends.

Place of withdrawal. After the publication of the revised Japanese government’s guidelines in 2010, two more articles adopted these official guidelines, which have more rigid criteria such as ‘staying at home almost all days’ (Kondo et al., 2013: 81), in their studies (Kondo et al., 2013; Todd, 2011). However, the World Mental Health Japan version of the hikikomori section questionnaire does not specify the withdrawal place (i.e. not necessarily withdrawn at home; for example, an Internet café may be another common setting) and allows occasional going out by socially withdrawn youths (Koyama et al., 2010). Hence, Heinze and Thomas (2014) suggested that there are ‘hard core’ and ‘soft’ socially withdrawn youths: hard core

youths never leave their room and do not talk to family members, while soft youths go out and talk to others occasionally.

Duration of withdrawal. In Japan, researchers have generally perceived a duration of social withdrawal that is longer than 6 months as problematic. However, in other places, such as Korea (Lee et al., 2013) and Hong Kong (Chan and Lo, 2013), researchers have advocated a shorter duration (i.e. 3 months) as problematic. Wong et al. (2014) compared the number of negative life events and the poor mental health status of youths who have been socially withdrawn for more than 6 months and less than 6 months and found that they are very similar. In other words, it seems that there is not much difference between youths who have been withdrawn for 3 months and those who have been withdrawn for 6 months or more. Hence, they recommended that a shorter duration might be considered for defining youth social withdrawal in order to enhance earlier identification of the potential problematic consequences of youth social withdrawal. However, regardless of the formal definition of the duration of youth social withdrawal, it is difficult to determine the duration due to the different understandings of social withdrawal and even to youths and

their parents interpreting social withdrawal as normal, like 'taking a rest' (Hattori, 2006).

Category (2): developmental theories

Attachment theory

Hattori (2006) was the first to relate youth social withdrawal as an outcome of insecure attachment. He observed that socially withdrawn youths generally present a loss of secure attachment. According to Bowlby (1982[1969]), attachment security in early life will influence an individual's later social interactions and relationships. Not surprisingly, insecure attachments, especially avoidant and ambivalent attachment, have been suggested to be associated with social withdrawal (Krieg and Dickie, 2013). However, youths with avoidant and ambivalent attachment behave differently when they withdraw.

Avoidant individuals suffer due to the unavailability of support from their attachment figures (Mikulincer and Shaver, 2013). To cope, they will deny their need for connectedness and disengage from social relationships; consequently, they avoid intimacy, emotional closeness and interdependence in relationships. In the literature, youth social withdrawal behavior is perceived as a form of avoidance strategy for avoidant individuals to cope with nonresponsive attachment figures and attachment traumas (Sakamoto et al., 2005), and they therefore avoid social contacts (Kato et al., 2012), social situations (Tateno et al., 2012) and even crowds, trains and public places (Hattori, 2006). Avoidant attachment is also often associated with the problems of self-inflation and being overly competitive (Mikulincer and Shaver, 2013). These problems also appear in socially withdrawn youths. It has been observed that the pride of socially withdrawn youths is too high to endure damage to their dignity (Ogino, 2004). They also distrust others and refuse to seek help when facing problems.

Ambivalent individuals, on the other hand, suffer from inconsistent support from attachment figures (Mikulincer and Shaver, 2013). They attempt to acquire support and their attachment figures are sometimes responsive; however, they become frustrated and unconfident when support is not provided. This partial positive reinforcement means that ambivalent individuals are caught in an approach-avoidance conflict. Attachment researchers generally believe that ambivalent individuals will stay with people and strive for attachment although they may have unsatisfactory social relationships. Thus, it seems that ambivalent individuals are unlikely to become socially withdrawn youths. However, Krieg and Dickie (2013) have demonstrated the association between ambivalent attachment and youth social withdrawal using path analysis. They have suggested that the avoidant behavior of ambivalent individuals can be intensified by cultural differences. For

example, the Japanese culture of harmony can intensify the psychological impact of peer rejection on ambivalent individuals. Without being able to manage the psychological impact, ambivalent individuals are urged to approach people in Japan's conformist society. Youth social withdrawal becomes the consequence of the exhaustion resulting from having to both meet social expectations and withstand peer rejection under Japanese culture.

While it is reasonable to relate social withdrawal to insecure attachment orientations, social withdrawal related to secure attachment is less discussed. However, it is believed that secure individuals might be more comfortable with solitude in the presence of adequate support (Mikulincer and Shaver, 2013). In one of the included articles, Furlong (2008) describes how some socially withdrawn youths seem to have a secure attachment to their families but end up secluding themselves in their comfort zones without exploring the outside world.

Erikson's stages of psychosocial development

Youth social withdrawal can result from the failure to confront crises in one's psychosocial development. The intimacy vs isolation conflict is emphasized at the young adulthood stage between the ages of 20 and 39 years (Erikson, 1950). Intuitively, a young adult who fails to achieve intimacy at the young adulthood stage may suffer from isolation and hence from youth social withdrawal (Teo et al., 2013). However, socially withdrawn youths have been usually found to be teenagers, with the onset of withdrawal normally occurring at the adolescence stage between the ages of 15 and 19 years (Heinze and Thomas, 2014; Koyama et al., 2010). The negative consequences of isolation at the young adulthood stage may not fully explain the normal teenage onset of youth social withdrawal. Some researchers have suggested that identity crisis at the adolescence stage leads to youth social withdrawal (Furlong, 2008; Wong et al., 2014). Earlier unresolved psychosocial crises will be reorganized or reintegrated in the adolescence stage when coping with identity formation problems (Erikson, 1968). For confused individuals going through a transitional period, youth social withdrawal can be a form of psychological moratorium to regain control over the environment and gradually reestablish direction and reconstruct identity (Furlong, 2008).

Category (3): factors associated with youth social withdrawal

Psychological factors: traits of socially withdrawn youths

Overdependent. In many affluent Asian societies, the young generation seems to be overly reliant on parental support due

to a comfortable socioeconomic background (Kato et al., 2012) and an overprotective parenting style (Teo, 2010). With optimal support and protection, children could develop a secure attachment to their parents; however, overprotection by the family can deprive children of autonomy and the opportunity to explore the outside world and hence restrict their psychosocial development (Borovoy, 2008; Suwa et al., 2003) and, in return, suffer from poor social skills and have limited opportunities to develop other interpersonal relationships (Umeda and Kawakami, 2012). Since family can provide adequate tangible and emotional support to these socially withdrawn youths, they become overdependent and reluctant to join society by adopting a conformist or individualized lifestyle. Social withdrawal creates a downward spiral for youths to confine themselves in their own worlds and thoughts.

Maladaptive interdependent. In conformist societies, many youths understand the importance of being interdependent and are aware of the negative consequences of not being interdependent. For instance, some youths sacrifice themselves to collective progress in social situations and are excessively aware of their own shortcomings (Toivonen et al., 2011). They become disappointed in and pessimistic about their inability compared with others (Chan and Lo, 2013). Attachment researchers could consider this type of socially withdrawn youths with ambivalent attachment. These youths restrict their authentic feelings, individual interests and original personality to act out certain roles according to social expectations (Todd, 2011), but they hardly hold onto their roles for a long time (Suwa and Suzuki, 2013). They protect their roles by using the avoidance of competitive settings and ordinary human relations as defensive mechanism, and they become hypersensitive to criticism or advice from others (Nagata et al., 2013). Maladaptive interdependence is therefore associated with fear of criticism and rejection.

Counterdependent. Similar to the socially withdrawn youths described as antisocial or avoidant in the literature (Furlong, 2008; Sakamoto et al., 2005), counterdependent youths refuse attachment and dependence. These youths have been described as pioneers who resist social conformity by withdrawing (Borovoy, 2008). The quality of life of socially withdrawn youths in this type has been found to increase as they regain a feeling of control over the environment (Chan and Lo, 2013). Being socially withdrawn can release individuals from the time pressure of punctuality and the need for speed and efficiency, space constraints, social responsibilities and role performances (Chong and Chan, 2012; Kaneko, 2006). Without various constraints from society, social withdrawal allows personal growth through self-seeking (Heinze and Thomas, 2014), identity formation (Furlong, 2008) and the search for personal meaning (Todd, 2011).

On the other hand, some researchers have suggested that a socially withdrawn individual is a cultural dropout due to

his or her maladaptation to social changes rather than actively embracing alternatives (Toivonen et al., 2011). The recent shift from collectivism to individualism in conformist societies in Asia has triggered people's internal conflict between the pressure to conform and the impulse to individuate (Chong and Chan, 2012). A greater sense of anomie (Furlong, 2008) and a pervasive sense of alienation (Todd, 2011) are gradually cultivated. Socially withdrawn youths may internalize different social norms and values paradoxically. They end up escaping from reality into a virtual 'closed world' at their computers (Wilson, 2010).

Social factors: trajectories of socially withdrawn youths

Family. Factors that have been identified include traditional family issues such as a nuclear family without extended family support (Borovoy, 2008; Kaneko, 2006; Lee et al., 2013), a broken family (Chong and Chan, 2012), the death of a family member (Kondo et al., 2013) and dysfunctional family dynamics and parenting (Chan and Lo, 2014b; Heinze and Thomas, 2014; Suwa et al., 2003). Some parents who do not know how to initiate conversation with or care about their children (Suwa et al., 2003) may fail to teach their children empathy, how to establish trusting relationships with others and how to engage in healthy communications (Todd, 2011). On the other hand, families that assume too much responsibility for supporting their children by providing money, food and shelter even when they become legal adults and after being married can also cultivate a 'parasitical tendency' in their children (Furlong, 2008; Heinze and Thomas, 2014).

School. Many Asian countries impose a nationwide, government-sanctioned school curriculum and a rigid educational system with a single set of values (Suwa and Suzuki, 2013; Todd, 2011). Rote learning instead of critical or creative thinking is always required (Borovoy, 2008). If students miss several classes, it may be difficult to get back on track, resulting in a sense of the worthlessness of school life and thus to school truancy and dropout (Uchida, 2010). In addition, bullying, such as name-calling, teasing, social isolation and peer rejection, of the physically fragile, developmentally delayed or emotionally detached is commonly reported in many studies (Borovoy, 2008; Chong and Chan, 2012; Furlong, 2008; Hattori, 2006; Kondo et al., 2013; Krieg and Dickie, 2013; Lee et al., 2013; Sakamoto et al., 2005; Teo, 2010; Todd, 2011; Wong, 2012). In Japan, it has been found that teachers or parents are, in fact, tolerant of bullying because they believe it is 'behavior modification' to make students conform to peer groups (Todd, 2011). However, the bullying experience has been found to make students feel intense resentment and distrust of their peers (Hattori, 2006).

Family-school. Many socially withdrawn youths have been found to be the eldest son in their family (Teo, 2010).

Regardless of family background, middle class (Furlong, 2008) or working class (Wong, 2009), in Asia, parents have high expectations of their eldest son. Parents with financial resources, a high level of education and prestigious jobs are more achievement-oriented and obsessed with education (Hattori, 2006). However, too high of academic expectations and keen competition can lead to children experiencing a crisis of confidence when they fail (Lee et al., 2013). They can also be despised and misunderstood by their parents and teachers if they do not excel in their academic work (Chong and Chan, 2012). Furthermore, some children are forced to attend additional tutorial classes after school; this not only deprives them of their leisure time but also creates extra tension for them (Hattori, 2006). Socially withdrawn youths have been associated with high academic pressure and failure to attain top-ranking academic achievements (Furlong, 2008).

Society. In the past, people in many Asian countries such as Japan struggled to make a direct transition from study to a good working status although the process was rigidly organized (Itoh, 2012). However, most people could secure a job if they worked hard on their studies and had good grades in high school and university (Furlong, 2008), and many people could work in their jobs until retirement or death. However, with the decline in traditional opportunities, academic success no longer guarantees good career prospects or even employment (Suwa and Suzuki, 2013). Alternatives to economic autonomy and social security remain extremely limited (Toivonen et al., 2011). Thus, unforeseeable career variables and even irregular employment lead to downward social mobility (Furlong, 2008) and a declining sense of the value of work (Teo, 2010). More people who experience difficulty in finding a job have no legitimate social status to prove themselves in social settings (Lee et al., 2013; Ogino, 2004). They may therefore become socially withdrawn due to the loss of a sense of direction and the failure to find a place in society (Furlong, 2008).

Behavioral factors: social withdrawal settings and social interaction tendency

Asocial staying at home. Socially withdrawn youth is typically described as an asocial individual who stays at home. Some youths spend much time at home engaging in solo activities and make a minimal effort to maintain interpersonal relationships (Chong and Chan, 2012; Lee et al., 2013; Ovejero et al., 2013). After leaving a social setting such as school or employment, they become physically disconnected. Some even seclude themselves in their own bedrooms, further distancing themselves from the outside world (Teo, 2010). They watch television, play computer or video games and read books or manga (Sakamoto et al., 2005). Sometimes, they have day–night reversal—sleeping all day and staying awake all night (Masataka, 2002)—and even do not take baths (Kaneko, 2006). Prolonged isolation

can deskill these youths in terms of communication and socialization (Wong, 2009) and cultivate a comprehensive sense of apathy (Teo, 2010). Researchers have reported that socially withdrawn youths have few friends and passive or indifferent relationships with their peers and parents in early life (Chong and Chan, 2012; Lee et al., 2013; Wong et al., 2014) and decrease their social involvements when they get older (Itoh, 2012).

Asocial but going out. Most people think that socially withdrawn youths do not leave their homes; however, only 27% of socially withdrawn youths in Japan do not leave their living spaces (Ogino, 2004). Socially withdrawn youths normally go out alone for different purposes. Some go out only when it is necessary, for example, to buy things at a convenience store, usually when few people are around because they do not want to encounter ex-classmates or neighbors (Wong, 2009, 2012). Some, however, go out on a regular basis during the day, as if going to school or work, in order to hide their social withdrawal condition, but in fact they spend their time aimlessly walking around or riding trains (Furlong, 2008). Some go out only for their own distraction or to enjoy themselves at weekends (Heinze and Thomas, 2014; Kaneko, 2006).

Selectively social. Apart from being asocial, it has been found that some socially withdrawn youths can handle communication with people unconnected to their work or life (Suwa and Suzuki, 2013), interact with their parents and family members (Wong, 2012) and maintain social contacts through digital means (Wilson, 2010). This implies the youths do not completely lose their ability to socialize although they are staying at home for a long time. Some socially withdrawn youths are willing and able to express their own social withdrawal experiences (Kaneko, 2006) or even to take trips with friends and part-time jobs occasionally (Suwa et al., 2003). Furthermore, the Internet provides them with a convenient channel for interpersonal communication at home. They can chat online with strangers in privacy and with anonymity in order to develop virtual social networks and intimacy (Chan and Lo, 2014a; Wong, 2009). Through these virtual social networks, they can possibly receive peer support and recognition (Chan and Lo, 2013) and even redefine their social identity to be more positive and socially acceptable in order to regain a sense of usefulness (Heinze and Thomas, 2014).

Category (4): interventions for socially withdrawn youths

Attitudes toward helping socially withdrawn youths

Clinicians. Health professionals generally think that socially withdrawn youths need therapeutic support (Tateno et al.,

2012). Researchers have found that 78% of socially withdrawn youths in Japan are worried or irritable about their social withdrawal condition and over 50% have experienced psychiatric disorders, especially mood disorders, in their lifetime (Koyama et al., 2010). It has been suspected that youth social withdrawal is a proxy for personality disorder (Hattori, 2006), a severe form of social anxiety disorder (Nagata et al., 2013) and Internet addiction (Wong, 2009). Furthermore, studies have reported angry outbursts among socially withdrawn youths (Borovoy, 2008; Hattori, 2006), and in Japan, 18% of socially withdrawn youths were found to have committed violence against their parents (Ogino, 2004). Therefore, health professionals treat socially withdrawn youths with clinical approaches such as recovery of emotions, symptom relief and rehabilitation (Hattori, 2006).

Nonclinical professionals. Nonclinical professionals such as social workers and educators, however, accept the diversity of young people (Wong, 2009) and resist pathologizing this particular youth problem (Borovoy, 2008; Chan and Lo, 2013). In developed countries, youth social withdrawal has been regarded as a contemporary youth issue that any youth can encounter. To help youths facing this issue, nonclinical professionals promote integration into one's own social role (Borovoy, 2008); foster cooperation and independence (Furlong, 2008); cultivate endurance, patience and perseverance (Borovoy, 2008); raise one's self-awareness (Chong and Chan, 2012); and acknowledge one's ability and self-worth (Wong, 2009). The general goal of helping socially withdrawn youths is to draw them out from their rooms (Teo, 2010) to return to school and the labor market (Ogino, 2004) and to reintegrate them into mainstream social participation (Borovoy, 2008).

Families of the youths. The literature has suggested the failure of some of the families of socially withdrawn youths to act as an effective therapeutic agent (Rosenthal and Zimmerman, 2012). For example, social stigma and lack of knowledge can delay the help-seeking of family members (Tateno et al., 2012). Parents in conservative societies may be afraid of losing face as a result of the disclosure of their socially withdrawn children (Chong and Chan, 2012). Therefore, they try not to approach and ask their children about the problem of social withdrawal because the problem does not cause any harm to others (Suwa et al., 2003). Such parents are not willing to interfere with their children's lives and empower them to return to society until very late in the social withdrawal condition (Todd, 2011). Future research could focus more on the families of socially withdrawn youths and on educating them on the suitable help available for such youths.

Socially withdrawn youths. Social withdrawal as an avoidant behavior can delay a person seeking help (Chong and Chan,

2012). The longer the social withdrawal period, the more challenging it is for a socially withdrawn youth to make a step toward accessing or receiving professional help (Wong, 2012). In Japan, two-thirds of socially withdrawn youths do not consider meeting health professionals (Heinze and Thomas, 2014) and only severe cases visit health centers (Koyama et al., 2010). Although these youths sometimes take the initiative to seek help, they only use services several years after making an enquiry and stop using services without notice (Kaneko, 2006). In fact, some socially withdrawn youths do not wish to have any treatment because they may regard social withdrawal as a lifestyle rather than a problematic condition (Chan and Lo, 2013; Sakamoto et al., 2005). However, unlike their suffering counterparts, these socially withdrawn youths are willing to seek support on the Internet (Wong et al., 2014).

Current therapies, interventions and programs for socially withdrawn youths

Therapeutic approaches. Health professionals have treated youth social withdrawal as an illness requiring early intervention (Hattori, 2006), hospitalization (Kato et al., 2012), pharmacotherapy (Nagata et al., 2013), antidepressants (Teo, 2010) and even traditional Chinese medicine (Kato et al., 2012). In addition, some have provided counseling services (Kondo et al., 2013; Lee et al., 2013; Uchida, 2010) with psychotherapy (Furlong, 2008; Itoh, 2012; Nagata et al., 2013) and psychoanalysis (Wilson, 2010). Prolonged conversations can facilitate alliance building between therapists and socially withdrawn youths to provide the youths with a secure base for counseling (Krieg and Dickie, 2013). Therapists can talk with socially withdrawn youths patiently (Ogino, 2004) in order to understand their inner psychological situations and past attachment traumas (Hattori, 2006; Wong, 2009). Other therapies such as family therapy, milieu therapy, nidotherapy (Teo, 2010), narrative therapy (Chong and Chan, 2012) and naikan therapy (Borovoy, 2008) have also been used.

Social approaches. 'Free space' (Ogino, 2004), group activities and support groups (Kondo et al., 2013; Nagata et al., 2013) provide opportunities for socially withdrawn youths to socialize with other people. Most socially withdrawn youths do not actively participate in group interactions at the beginning; rather, they exhibit reticent behavior by first listening to others' conversations. Gradually, they will begin to talk with organizers and try to take part in social activities (Ogino, 2004). However, organizers need to sensitively arrange tuned-in groups for different socially withdrawn youths (Krieg and Dickie, 2013), be vigilant to stigmatizing labels and messages in the groups (Wong, 2012) and avoid authoritative supervision (Ogino, 2004); otherwise, competition, conflict and participant dropout may occur in the groups.

As for the form of activities, it is recommended that a rigid arrangement should be avoided (Teo, 2010). Organizers are advised to make activities informal, tailor-made, loosely scheduled, flexible, occasional and even sudden (Ogino, 2004; Wong, 2009). Organizers are also advised to keep calling on socially withdrawn youths to participate in activities (Wong, 2012) and to decide on an appropriate schedule because intensive activities can make the youths exhausted. Interestingly, the time and weather can also influence the attendance of socially withdrawn youths and the atmosphere of an activity (Kaneko, 2006). Mentoring schemes (Wong, 2009), big brother and big sister programs (Borovoy, 2008) and 'rental sisters' (Heinze and Thomas, 2014) are recommended when necessary.

Educational approaches. Social workers and educators provide different training programs for socially withdrawn youths. For example, social skills training is organized to equip such youths with the social skills (Borovoy, 2008; Itoh, 2012; Krieg and Dickie, 2013; Teo, 2010), such as emotion management when confronting others (Hattori, 2006), and interpersonal skills required for the exploration of social relationships and to allow them to experience a sense of relatedness (Wong, 2009). Work training and job-seeking assistance are also important (Itoh, 2012; Ogino, 2004) to give socially withdrawn youths more understanding of the new economy and the skills required in the modern labor market (Furlong, 2008). Job opportunities with flexible working hours on a trial basis can first be provided within the training or helping organization (Kaneko, 2006). Socially withdrawn youths can learn through trial and error in part-time jobs and gradually realize their working style and place in society (Heinze and Thomas, 2014).

Discussion: a proposed conceptual framework of youth social withdrawal

In sum, the youth social withdrawal phenomenon has emerged in many places recently which have similar contemporary socioeconomic environments, including a social change movement, a rigid educational system, irregular employment opportunities, a stopped or downward social mobility movement among the youth and the widespread use of the Internet and online gaming. The phenomenon appears to have become a universal concern in many high-income countries because many of these countries are aging societies and concern about particularly the shrinkage of a productive workforce in the coming future.

In the literature, youth social withdrawal is perceived either as a consequence of insecure attachment (Hattori, 2006; Krieg and Dickie, 2013) or as an essential self-searching process for many young people (Chan and Lo, 2013; Furlong, 2008). We, on the other hand, believe that a

balanced view is needed to conceptualize the coexistence of positive and negative consequences of youth social withdrawal. We, therefore, develop the conceptual framework to summarize and integrate the expanding literature on youth social withdrawal (see Figure 2). The framework views youth social withdrawal as a result of the interplay between psychological, social and behavioral factors, and we suggest that there are three main social withdrawal processes.

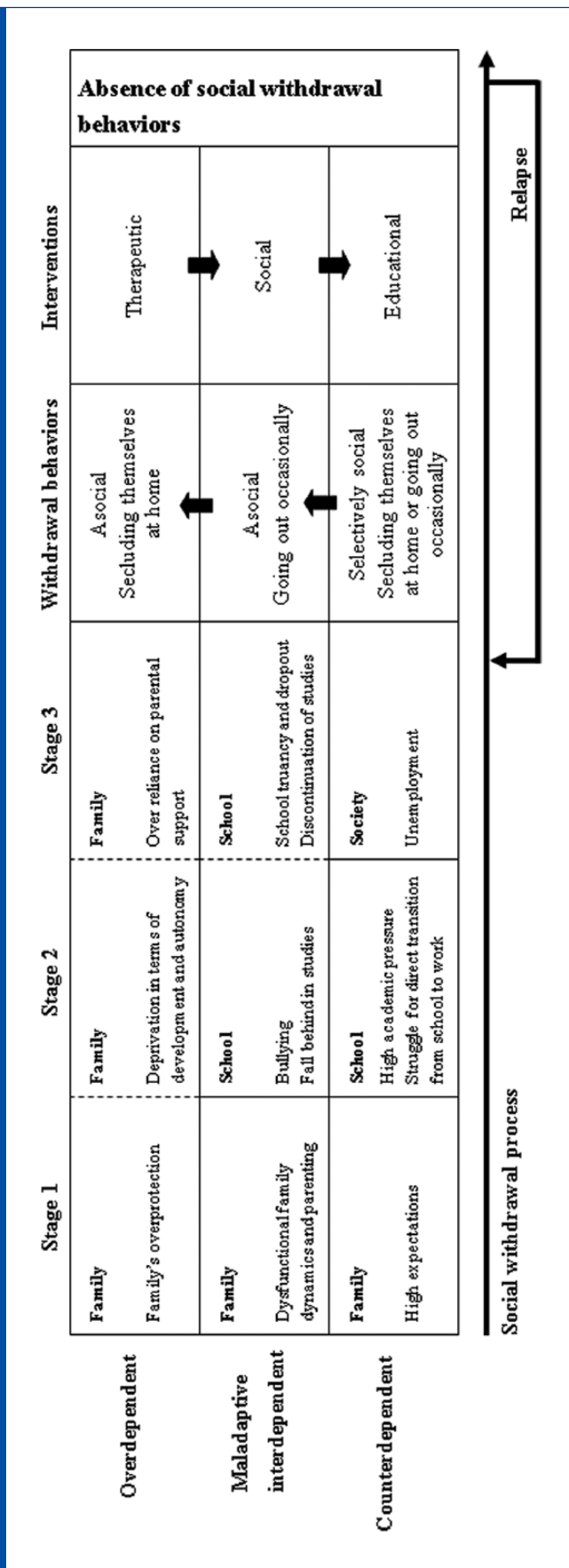
The first type of social withdrawal process

Overdependent socially withdrawn youths grow up in over-protective families where they fail to undergo healthy psychosocial development, such as learning how to trust people and gain autonomy. Meanwhile, families provide adequate tangible resources to these youths and so they have no motivation to risk exploring the outside world, leading to an over-reliance on parental support. The families then become the comfort zones and reinforce secure attachment of the overdependent youth. Their social withdrawal behavior is regarded as the most severe and most difficult to be reached and assisted among the three types of socially withdrawn youths in the framework. Overdependent socially withdrawn youths can be seen as the 'hard core' withdrawn youths who avoid all social interaction and confine themselves at home and even in their bedrooms. We believe that psychotherapeutic intervention is required because such youths can withdraw for a long period of time and suffer from serious developmental problems and family conflicts. Hence, intensive individual psychotherapy may be needed to relieve their emotional distress and anxiety associated with the delayed development and family therapy may be required to resolve their family problems (Hattori, 2006).

The second type of social withdrawal process

Maladaptive interdependent youths also face family issues such as dysfunctional family dynamics and parenting. Such youths are therefore not able to learn basic interpersonal skills in a family setting, and this leads to subsequent unsatisfactory relationships with peers and bullying by others and peer rejection at school. Many articles in the review reported the large psychological impact of those school problems on students, who end up truanting from or dropping out of school. However, unlike the overdependent youths, maladaptive interdependent socially withdrawn youths are eager to connect to other people and the world. Thus, after dropping out of school, they do go out occasionally rather than staying at home every day. We suggest that the primary intervention for the maladaptive interdependent youths can include social activities and support groups to resolve their conflicts between social desire and fear (Ogino, 2004). Having said that, these youths may still

Figure 2. A conceptual framework of youth social withdrawal illustrating the interplay of psychological (overdependent, maladaptive interdependent and counterdependent social withdrawal type), social (family, school and society) and behavioral (social withdrawal behaviors and intervention types) factors. The social withdrawal process shows youth social withdrawal at different stages.



need to be engaged very proactively with persistency because they might not have the confidence or interpersonal skills to socialize with strangers, including both laymen and professionals, initially.

It is noteworthy that based on the previous findings on the possible change of social withdrawal levels (Wong et al., 2014), when this type of socially withdrawn youth withdraw for a lengthy period of time, some may have more severe social withdrawal condition similar to the overdependent youths. But the underlying process remains the same. In such cases, therapeutic intervention may first be used to relieve distress and reduce apathy before social interventions are provided. It is possible that a youth can recover from social withdrawal after therapeutic intervention, but the likelihood of relapse is high as the fundamental problem of the conflict between social desire and fear for the maladaptive interdependent youth has yet to be resolved.

The third type of social withdrawal process

Counterdependent socially withdrawn youths are burdened by the high expectations of their parents with regard to achievement. These youths suffer from high academic pressure and career-related stress in their lives. The pressure and stress adversely affect the pace of their self-development. They spend much time on studying and planning their future, but their subsequent unemployment and the lack of opportunity frustrate them. When they become NEETs, they withdraw themselves to struggle for personal growth or to search for the meaning of life. The primary intervention for such youths, therefore, may be educational programs to provide opportunity for self-reflection, insight on surviving in the new economy and adopt the skills required in the modern labor market.

Although social withdrawal can be a form of psychological moratorium for counterdependent youths, prolonged social withdrawal may deskill their communication and interpersonal skills. These youths may gradually refuse to socialize or only feel comfortable communicating through digital means. Similar to the maladaptive interdependent youths, their social withdrawal condition will become more severe. If their social withdrawal condition gets worse, the counterdependent youths will need therapeutic intervention because unsatisfied social needs may lead to psychological difficulties. After handling the psychological problems with therapeutic intervention, social intervention can help these youths regain social skills and return to their original social withdrawal state.

Practical implications

We believe the proposed framework facilitates the development of the field by (1) matching socially withdrawn youths with appropriate interventions and (2) creating new and innovative engagement strategies based on the

understanding of different social withdrawal processes. Although there are diverse interventions for socially withdrawn youths (Chan and Lo, 2014c; Ovejero et al., 2013; Teo et al., 2014), to our knowledge, there is only one study that investigated the preferences of socially withdrawn youths regarding interventions (Teo et al., 2014) and one evaluation study to examine a complex intervention for socially withdrawn youth (Lee et al., 2013). Since there are different types of socially withdrawn youths who need different types of interventions, we suspect that a particular intervention may not fit all socially withdrawn youths. Therefore, future research should evaluate the effectiveness of different types of intervention on different types of socially withdrawn youths. It is believed that matching socially withdrawn youths with appropriate interventions can address current research issues such as low response rates (Nagata et al., 2013) and a lack of evaluation of the outcomes of interventions (Lee et al., 2013).

One of the most difficult aspects of helping socially withdrawn youth is that they cannot be easily identified and engaged by traditional approaches (Wong et al., 2014). For example, a previous study evaluated home visits for socially withdrawn youths and found that the many youths refuse to talk a lot and the working alliance is weak (Lee et al., 2013). Hence, innovative engagement methods are needed, and those methods should make good use of the advancement of information technology communication programs. Three studies in Hong Kong found that socially withdrawn youths use the Internet as a platform for communication, which means they are not necessarily disengaged in a 'closed-world' setting (Chan and Lo, 2013, 2014a; Wong et al., 2014). Future studies should establish and evaluate tailor-made Internet-based interventions to enhance the social and problem-solving skills of these youths. Online counseling services through Facebook, WhatsApp, Twitter, etc. can be considered to offer a secure and distanced channel for socially withdrawn youths to reestablish their trust in others before face-to-face interventions can be initiated. In an unpublished study being conducted in Hong Kong (Wong et al., submitted), animals have been used to attract socially withdrawn youths and to help them engage in social activities provided by a youth center. More, since family and school play a significant role in the development of social withdrawal behavior, parents and teachers need to be involved in the development of any preventative programs. Unfortunately, none of the included studies has discussed or suggested any directions for preventive work, especially at the school level, for social withdrawal. This is a significant missing area in the youth social withdrawal field but is urgently needed.

Limitations

There are some limitations to the review findings. First, the review incorporates only articles published in English, and

the search may have missed additional articles due to the exclusion of certain search terms, for example, 'social isolation' and 'non-engaged'. Second, the review did not investigate thoroughly the risk of bias within and across studies due to the small number of studies being conducted on this issue. Assessment of study quality was also not conducted. Third, it is noted that most of the articles only studied the perceptions or comments of socially withdrawn youths. Biological factors associated with youth social withdrawal can be investigated in the future. Future research should also incorporate service provider and helping professional participants. Given these limitations, the framework based on the review is open for revision when further research is available.

Acknowledgements

We thank all the colleagues from the Chinese Evangelical Zion Church, Hong Kong SAR for their efforts in providing Animal-Assisted Interventions for withdrawn young people and allowing us to learn from their practical experiences and wisdom.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

References

- Back SB (2014) Psychopathology of social isolation. *Journal of Exercise Rehabilitation* 10: 143–147.
- Borovoy A (2008) Japan's hidden youths: Mainstreaming the emotionally distressed in Japan. *Culture, Medicine and Psychiatry* 32: 552–576.
- Bowlby J (1982[1969]) *Attachment and Loss: Attachment*, vol. 1. 2nd Edition. New York: Basic Books.
- Bynner J and Parsons S (2002) Social exclusion and the transition from school to work: The case of young people not in education, employment, or training (NEET). *Journal of Vocational Behavior* 60: 289–309.
- Chan GHY and Lo TW (2013) Quality of life of the hidden youth in Hong Kong. *Applied Research in Quality of Life* 9: 951–969.
- Chan GHY and Lo TW (2014a) Do friendship and intimacy in virtual communications exist? An investigation of online friendship and intimacy in the context of hidden youth in Hong. *Revista de Cercetare și Intervenție Socială* 47: 117–136.
- Chan GHY and Lo TW (2014b) Family relationships and the self-esteem of hidden youth: A power dynamics perspective. *Journal of Family Issues*. Epub ahead of print 5 June. DOI: 10.1177/0192513X14537479.
- Chan GHY and Lo TW (2014c) Hidden youth services: What Hong Kong can learn from Japan. *Children and Youth Services Review* 42: 118–126.
- Chong S and Chan KM (2012) A case study of a Chinese 'hikikomorian' in Canada—Theorizing the process of hikikomorization. *Journal of Special Education and Rehabilitation* 13: 99–114.
- Erikson EH (1950) *Childhood and Society*. New York: W. W. Norton & Company.
- Erikson EH (1968) *Identity, Youth, and Crisis*, 1st Edition. New York: W.W. Norton & Company.
- Funakoshi A and Miyamoto Y (2014) Significant factors in family difficulties for fathers and mothers who use support services for children with hikikomori. *Psychiatry and Clinical Neurosciences*. Epub ahead of print 24 September. DOI: 10.1111/pcn.12230.
- Furlong A (2008) The Japanese hikikomori phenomenon: Acute social withdrawal among young people. *The Sociological Review* 56: 309–325.
- Hattori Y (2006) Social withdrawal in Japanese youth: A case study of thirty-five hikikomori clients. *Journal of Trauma Practice* 4: 181–201.
- Heinze U and Thomas P (2014) Self and salvation: Visions of hikikomori in Japanese manga. *Journal of the German Institute for Japanese Studies Tokyo* 26: 151–169.
- Horiguchi S (2012) Hikikomori: How private isolation caught the public eye. In: Goodman R, Imoto Y and Toivonen THI (eds) *A Sociology of Japanese Youth: From Returnees to NEETs*. Abingdon, Oxon; New York: Routledge, pp. 122–138.
- Itoh K (2012) Difficulties faced by hikikomori: From the life history in autobiographies and private papers. *KG Sociological Review* 1: 137–141.
- Kaneko S (2006) Japan's 'socially withdrawn youths' and time constraints in Japanese society: Management and conceptualization of time in a support group for hikikomori. *Time & Society* 15: 233–249.
- Kato TA, Shinfuku N, Sartorius N, et al. (2011) Are Japan's hikikomori and depression in young people spreading abroad? *Lancet* 378: 1070.
- Kato TA, Tateno M, Shinfuku N, et al. (2012) Does the 'hikikomori' syndrome of social withdrawal exist outside Japan? A preliminary international investigation. *Social Psychiatry and Psychiatric Epidemiology* 47: 1061–1075.
- Kondo N, Sakai M, Kuroda Y, et al. (2013) General condition of hikikomori (prolonged social withdrawal) in Japan: Psychiatric diagnosis and outcome in mental health welfare centres. *International Journal of Social Psychiatry* 59: 79–86.
- Koyama A, Miyake Y, Kawakami N, et al. (2010) Lifetime prevalence, psychiatric comorbidity and demographic correlates of 'hikikomori' in a community population in Japan. *Psychiatry Research* 176: 69–74.
- Krieg A and Dickie JR (2013) Attachment and hikikomori: A psychosocial developmental model. *International Journal of Social Psychiatry* 59: 61–72.
- Lee YS, Lee JY, Choi TY, et al. (2013) Home visitation program for detecting, evaluating and treating socially withdrawn youth in Korea. *Psychiatry and Clinical Neurosciences* 67: 193–202.
- Malagón-Amor Á, Córcoles-Martínez D, Martín-López LM, et al. (2014) Hikikomori in Spain: A descriptive study. *International Journal of Social Psychiatry*. Epub ahead of print 9 October 2014. DOI: 10.1177/0020764014553003.
- Masataka N (2002) Low anger-aggression and anxiety-withdrawal characteristic to preschoolers in Japanese society with 'hikikomori' is becoming a major social problem. *Early Education and Development* 13: 187–199.
- Mikulincer M and Shaver PR (2013) An attachment perspective on loneliness. In: Coplan RJ and Bowker JC (eds) *The Handbook of Solitude: Psychological Perspectives on Social Isolation, Social Withdrawal, and Being Alone*. Hoboken, NJ: John Wiley & Sons, pp. 34–50.
- Ministry of Health, Labour and Welfare (2003) *Community Mental Health Intervention Guidelines Aimed at Socially Withdrawn Teenagers and Young Adults*. Tokyo, Japan: Ministry of Health, Labour and Welfare.
- Ministry of Health, Labour and Welfare (2010) *Guidelines for Assessment and Support of Hikikomori*. Tokyo, Japan: Ministry of Health, Labour and Welfare.
- Moher D, Liberati A, Tetzlaff J, et al. (2009) Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine* 151: 264–269.
- Nagata T, Yamada H, Teo AR, et al. (2013) Comorbid social withdrawal (hikikomori) in outpatients with social anxiety disorder: Clinical characteristics and treatment response in a case series. *International Journal of Social Psychiatry* 59: 73–78.

- Norasakkunkit V and Uchida Y (2014) To conform or to maintain self-consistency? Hikikomori risk in Japan and the deviation from seeking harmony. *Journal of Social and Clinical Psychology* 33: 918–935.
- Ogino T (2004) Managing categorization and social withdrawal in Japan: Rehabilitation process in a private support group for hikikomorians. *International Journal of Japanese Sociology* 13: 120–133.
- Ovejero S, Caro-Cañizares I, de León-Martínez V, et al. (2013) Prolonged social withdrawal disorder: A hikikomori case in Spain. *International Journal of Social Psychiatry* 60: 562–565.
- Rosenthal B and Zimmerman DL (2012) Hikikomori: The Japanese phenomenon, policy, and culture. *International Journal of Mental Health* 41: 82–95.
- Sakamoto N, Martin RG, Kumano H, et al. (2005) Hikikomori, is it a culture-reactive or culture-bound syndrome? Nidotherapy and a clinical vignette from Oman. *International Journal of Psychiatry in Medicine* 35: 191–198.
- Staff J (2013) Coming of age in America: The transition to adulthood in the twenty-first century. *Contemporary Sociology: A Journal of Reviews* 42: 117–118.
- Suwa M and Hara K (2007) Hikikomori among young adults in Japan. *Journal of Medical Welfare* 3: 94–102.
- Suwa M and Suzuki K (2013) The phenomenon of ‘hikikomori’ (social withdrawal) and the socio-cultural situation in Japan today. *Journal of Psychopathology* 19: 191–198.
- Suwa M, Suzuki K, Hara K, et al. (2003) Family features in primary social withdrawal among young adults. *Psychiatry and Clinical Neurosciences* 57: 586–594.
- Tateno M, Park TW, Kato TA, et al. (2012) Hikikomori as a possible clinical term in psychiatry: A questionnaire survey. *BMC Psychiatry* 12: 169.
- Teo AR (2010) A new form of social withdrawal in Japan: A review of hikikomori. *International Journal of Social Psychiatry* 56: 178–185.
- Teo AR (2012) Social isolation associated with depression: A case report of hikikomori. *International Journal of Social Psychiatry* 59: 339–341.
- Teo AR and Gaw AC (2010) Hikikomori, a Japanese culture-bound syndrome of social withdrawal? A proposal for DSM-5. *Journal of Nervous and Mental Disease* 198: 444–449.
- Teo AR, Fetters MD, Stufflebam K, et al. (2014) Identification of the hikikomori syndrome of social withdrawal: Psychosocial features and treatment preferences in four countries. *International Journal of Social Psychiatry* 61: 64–72.
- Teo AR, Stufflebam KW and Kato TA (2013) The intersection of culture and solitude: The hikikomori phenomenon in Japan. In: Coplan RJ and Bowker JC (eds) *The Handbook of Solitude: Psychological Perspectives on Social Isolation, Social Withdrawal, and Being Alone*. Hoboken, NJ: John Wiley & Sons, pp. 445–460.
- Todd KHL (2011) Hikikomania: Existential horror or national malaise? *Southeast Review of Asian Studies* 33: 135–147.
- Toivonen T, Norasakkunkit V and Uchida Y (2011) Unable to conform, unwilling to rebel? Youth, culture, and motivation in globalizing Japan. *Frontiers in Psychology* 2: 207.
- Uchida C (2010) Apathetic and withdrawing students in Japanese universities—With regard to hikikomori and student apathy. *Journal of Medical and Dental Sciences* 57: 95–108.
- Umeda M and Kawakami N (2012) Association of childhood family environments with the risk of social withdrawal (‘hikikomori’) in the community population in Japan. *Psychiatry and Clinical Neurosciences* 66: 121–129.
- Watts J (2002) Tokyo—Public health experts concerned about ‘hikikomori’. *Lancet* 359: 1131.
- Wilson S (2010) Braindance of the hikikomori: Towards a return to speculative psychoanalysis. *Paragraph* 33: 392–409.
- Wong PWC, Li TMH, Chan M, et al. (2014) The prevalence and correlates of severe social withdrawal (hikikomori) in Hong Kong: A cross-sectional telephone-based survey study. *International Journal of Social Psychiatry*. Epub ahead of print 24 July. DOI: 10.1177/0020764014543711.
- Wong PWC, Yu RWM, Li TMH, Lai SLH, Ng HYH and Fan WTW (submitted) Efficacy of a multicomponent intervention with or without the inclusion of animals for enhancing self-esteem, employability, and reducing interaction anxiety of socially withdrawn youths in Hong Kong: a pilot evaluation study.
- Wong V (2009) Youth locked in time and space? Defining features of social withdrawal and practice implications. *Journal of Social Work Practice* 23: 337–352.
- Wong V (2012) Social withdrawal as invisible youth disengagement. *The International Journal of Sociology and Social Policy* 32: 415–430.