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Research Article

The complex sexuality of "Italian" Hikikomori and the need for better nosographic framing of psychopathological evidence

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Abstract

Objective: The definition of "hikikomori" evokes dysfunctional personality pictures already known in the literature and medical practice. The aim is to refute the hypothesis of the need to identify this clinical condition in a new descriptive framework.

Materials and methods: Pubmed checklist, clinical interview, and psychometric tests.

Results: In the entirety of the selected population, it emerges that the primary disorder is schizoid personality disorder; this is followed by depressive disorder, narcissistic covert disorder, bipolar disorder with depressive prevalence, obsessive disorder, avoidant disorder, and somatic disorder as secondary dysfunctional personality traits. Childhood and/or family trauma, capable of impacting the sexual and affective sphere, is present in almost the entire population.

Conclusion: The syndrome should be framed as a specific phenomenon and not as a new psychopathological disorder, as the symptomatological descriptions are similar to the already known schizoid personality disorder; the symptomatological differences among patients should be framed according to a logic of correctives determined by the presence of one or more secondary psychopathological traits that draw a more complex personality picture than the simple nosographic diagnosis of the DSM-V.

Key points

- The descriptive picture of psychiatric symptoms of the patient with Hikikomori syndrome shows similarities with some personality disorders already identified in the literature and clinical practice.

- In the selected population, it emerges that the primary disorder is schizoid personality disorder; this is followed by depressive disorder, narcissistic covert disorder, bipolar disorder with depressive prevalence, obsessive disorder, avoidant disorder, and somatic disorder as secondary dysfunctional personality traits.

- Childhood and/or family trauma, capable of impacting the sexual and affective sphere, is present in almost the entire population.

- The syndrome should be framed as a specific phenomenon and not as a new psychopathological disorder, as the symptomatological descriptions are similar to the already known schizoid personality disorder; the symptomatological differences among patients should be framed according to a logic of correctives determined by the presence of one or more secondary psychopathological traits that draw a more complex personality picture than the simple nosographic diagnosis of the DSM-V.

- The investigation of the sexual dimension of patients shows in almost all of the selected population a lack of acceptance of their sexual dimension, enacting avoidant, hyposexual, or markedly directed behaviors toward perverse and dysfunctional sexuality, reporting having suffered severe psychological or physical abuse at a young age, intra-parental relational imbalances, or otherwise a sexual upbringing that was not open and lacked free communication.

Introduction and background

Definition and sociopolitical and clinical context

The phenomenon of "hikikomori" can be regarded as a voluntary social exclusion, a rebellion of Japanese youth against traditional culture and the entire social apparatus, by adolescents who live reclusive in their home or room without any contact with the outside world or with family members or friends. The term was first coined by psychiatrist Tamaki Saitō when he began to realize the symptomatic similarity of an increasing number of adolescents exhibiting lethargy, incommunicability, and total isolation, as well as neurotic-type psychiatric symptoms [1].

The Japanese government, given the social significance of the problem, has identified certain criteria for accurately diagnosing the "state" of hikikomori (effectively excluding the diagnostic label of "syndrome"): a) complete withdrawal from society for more than six months, continuous; b) presence of the school and/or work rejection (excluding those individuals who despite social withdrawal continue to maintain one or more social relationships); c) diagnostic absence, at the time of the onset of the hikikomori state, of psychopathological and neurocognitive forms such as mental retardation, schizophrenia, or other serious psychiatric disorders; d) depressive symptoms; e) obsessive-compulsive behaviors; f) persecution mania; g) sleep-wake disorders (with the prevalence of circadian rhythm reversal); h) behavioral addiction (with prevalence to technology, internet, and comic book collecting/interest) [2-4].

A perennial state of anxiety is inferred in hikikomori [5,6], which many researchers liken to an extreme state of social anxiety [7-8], correlated with possible eating disorders, sleep disorders, obsessive and agoraphobic symptoms, depressive symptoms, behavioral addictions, possible disorders in the sexual sphere and personality disorders related to the specific symptomatology [9-38]. In any case, lack of social contact and prolonged loneliness have profound effects on the hikikomori, who gradually loses the social skills, behavioral references, and communication skills needed to interact with the outside world. In the most severe forms, the hikikomori rarely leaves his room, not even to wash, demanding that food be left in front of his door and eating meals inside his room; they may appear unhappy, lose friendships, security, and self-confidence, with exponentially increased aggression often toward parents or close figures [39-41].

From the literature, it is not possible to date to attribute the onset of hikikomori to a specific trauma that conditions his entire future perception of reality [42,43]: simply, some Japanese youths lose the energy expected of youths belonging to their age group, although the suicide rate among hikikomori remains low because, although the desire to end their existence is high, a form of self-satisfaction and narcissism takes over in the subjects that saves their lives from suicidal intent, which requires effective psychotherapeutic intervention [44-48].

The universe of sexuality of the patient diagnosed with hikikomori syndrome is scarcely investigated in the literature, if not marginally. The following have been investigated: a) the etiological dynamics of a neurobiological nature, concerning the hypothesis of the involvement of oxytocin and vasopressin, but also concerning gender and genetic predispositions that can predispose or facilitate social withdrawal [49]; b) gender differences [50]; c) the relationship with the concept of apathy [51]; d) the compression of social relationships, including the dynamics of sexuality with other people [52]. This lack of argument therefore deserves to be studied in depth here, to better contextualize the issue.

Statistical incidence of the phenomenon

The first spread of the phenomenon occurred precisely in Japan in the mid-1980s, with a substantial increase in the late 1990s, becoming viral in the second half of the 2000s, involving about one million Japanese (although the most accurate estimates spoke of a much lower number); the reliability of data on the incidence of the phenomenon, however, is undermined by several factors, such as the reluctance of families to report cases or, conversely, by a lack of knowledge about it and journalistic sensationalism. The age range is also fluctuating: in 2012, epidemiological studies spoke of 20-50 years, while in 2016 studies spoke of 15-64 years. Prevalence concerning gender is also about 1/10 in favor of men (1 woman and 9 men); however, even this figure is heavily biased: it is possible that many cases of hikikomori among women are not recognized as such because the Japanese perceive women's withdrawal to the home as customary within their society, unlike men, who would be more subject to social judgment [53,54].

The phenomenon of Italian hikikomori

Hikikomori, however, is not an exclusively Japanese phenomenon being widespread (albeit in a much smaller percentage than in Japan) in the Western world and the rest of Asia as well. In Italy, it is estimated that one in every 250 individuals is subject to behaviors at risk of social confinement, but this behavioral manifestation is correlated with several other psychopathologies, such as depressive states, bipolar with depressive prevalence, and the schizophrenic spectrum (including schizoid forms). In 2013, according to the Italian Society of Psychiatry, about three million Italians between the ages of 15 and 40 were suffering from this disorder; however, the disorder is often associated or confused with other psychopathological associations and with nerd and geek culture, or more frequently with simple Internet addiction, severely limiting the scope of the phenomenon under consideration. A more recent and reliable Italian estimate speaks of 100,000 hikikomori cases, in Italy [54].

Objective, materials and methods

Objective

Starting from the classic definition of "hikikomori" (as a person's voluntary condition of isolation and social withdrawal), the present research is aimed at confirming the theoretical assumption of psychopathological origin in the nosography of psychopathological disorders already known in the literature, while refuting the hypothesis of a need to identify this phenomenon in a new descriptive framework.

Materials

I searched in Pubmed until March 30, 2023, for reviews, meta-analyses, clinical trials, and randomized controlled trials, using the keywords "hikikomori", "diagnosis", "treatment", "syndrome" and "internet", content on the abstract and title, have been selected 13 useful results. Simple reviews, opinion contributions, or systematic reviews were included because there are no published clinical trials. No limit was placed on the year of publication, covering the time window from 2008 to the present period (Figure 1).

Participants

The requirements (inclusion criteria) decided for the selection of the sample population (clinical group, CG) are:

1. Age between 14 years and 48 years, divided into 6 subgroups distinguished by age period (14-19y, 20-25y, 26-31y, 32-37y, 38-43y, 44-49y).

2. Italian nationality, with Italian ancestors in the last two generations.

3. Statement of the individual sexual matrix, relative to one's orientation dimension (m/f defined sexual gender and heterosexuality).

4. Mental health status statement, by administering Hikikomori Questionnaire-11 (HQ-11) [56], certifying the presence of the following hikikomori traits, for more than 6 months: a) complete social withdrawal, from any activity that involves interaction with other subjects, intentional and intentional (generating anxiety and discomfort at the idea of interacting with other subjects); b) presence of school and/or work refusal (for participants between the ages of 14 and 16, thus formally obligated by Italian law to attend school, this requirement is still met as long as the registrant affirms

that he or she attends compulsory school against his or her will and in total disagreement with the imposed obligation and has no human, personal or educational relationship with classmates or other subjects related to personal activity); c) diagnostic absence, at the time of onset of the state of hikikomori, of psychopathological and neurocognitive forms; d) neurotic symptoms and/or persecution mania; e) sleep-wake disturbances (with prevalence of circadian rhythm reversal); f) behavioral addiction (with prevalence of technological forms, internet surfing for forms of entertainment and interest in comic books).

The exclusion criteria are:

1. Age under 14 years or over 48 years.

2. Non-Italian nationality or without Italian ancestors in the last two generations.

3. Sexual gender other than male/female

4. Fluid sexual orientation (non-heterosexual).

5. Absence of diagnosis of Hikikomori, at the HQ-11 questionnaire.

On the other hand, the requirements established for the selection of the sample population (control subgroup, Cg) are the same as for the clinical group, except for no. 4, which requires a declaration of mental and physical fitness.

The initial population sample selected consisted of 1321 participants; however, at the clinical interview, 1223 people (92.6%) did not meet the conditions for inclusion in the study since 1000 (75.7%) did not present the symptom of social withdrawal, 197 people (14.9%) presented the symptom of social withdrawal but shared recreational and personal activities with other people, albeit to a lesser extent; 21 people (1.6%) said they didn't always agree with the extreme implementation of social withdrawal, but it was their low mood that didn't allow them to react otherwise; 5 people (0.4%) had a suspected psychopathological diagnosis of different classification, subsequently confirmed.

The selected population "Clinical Group" (CG), which meets the requirements, is 98 participants (7.4%), divided into 6 groups (Tables 1,2).

The same units of participation were also determined for the "Control Group" (Cg) to make comparisons between the groups, selecting subjects by same age of birth (the same year of birth) and geographic location, but the absence of typical symptoms of Hikikomori syndrome, beyond any overt psychopathological diagnosis (Table 3).

Setting

The selected setting, taking into account the protracted pandemic period (already in progress since the beginning of the present research), is the online platform via Skype and Video call Whatsapp, both for the clinical interview and for the administration.
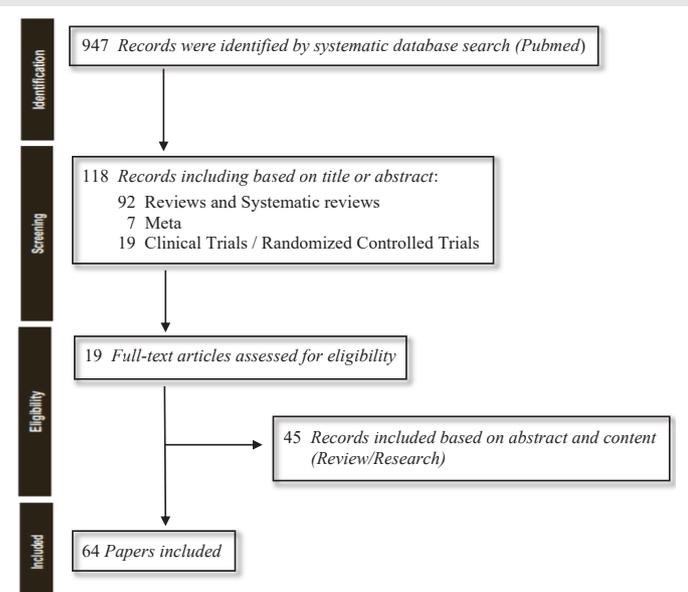

Figure 1: PRISMA flow diagram template for systematic reviews. Adapted from Matthew J. Page, et al. BMJ 2021; 372:n71 [55].

The present research work was carried out from March 2019 to March 2023. All participants were guaranteed anonymity and the ethical requirements of the Declaration of Helsinki are met.

Since the research is not financed by anyone, it is free of conflicts of interest.

Methods

The methods used are two: 1) Clinical interview, based on narrative-anamnestic and documentary-psychometric tests, such as the administration of the Hikikomori Questionnaire-11 (HQ-11) [56] and the clinical evaluation using the Perrotta Human Emotions Model (PHEM) [57] regarding their experience emotional and perceptual-reactive.; 2) Administration of the battery of psychometric tests published in international scientific journals by the author of this work [58-63]: a) Perrotta Integrative Clinical Interviews (PICI-2), to investigate functional and dysfunctional personality traits; b) Perrotta Individual Sexual Matrix Questionnaire (PSM-Q), to investigate individual sexual matrix; c) Perrotta Human Defense Mechanisms Questionnaire (PDM-Q), to investigate ego defense mechanisms. The phases of the research were divided as follows: 1) selection of the population sample, according to the parameters indicated in the following paragraph; 2) clinical interview, to each population group; 3) clinical interview and statistic administration; 4) data processing following administration; 5) comparison of data obtained.

Statistical analysis

Data are presented as mean ± SD for parametric data, median with interquartile range (IQR) for non-parametric data, and no. (%) for categorical data. Shapiro Wilk Test was performed to test for normality. T - test and Mann-Whitney test was used to compare continuous data, and the $\chi 2$ test was used to compare categorical variables. Statistical significance for group comparison was set up at $p < 0.05$. SPSS software (Inc, Chicago, IL; version 23.0) and Excel (Microsoft; version 365) were used for the analysis.

Results

After the selection of the chosen population sample (first stage), I proceeded with CG and the clinical interviews (second stage), from which the first significant data emerged:

1. The symptomatology described overlaps perfectly with the nosographic description already used for the structural forms in the DSM-V, especially the relation to neurotic symptomatology, social withdrawal, strong suspiciousness, and psychotic symptomatology (in severe cases).

2. The PICI-2 nosography more pointedly describes the phenomenon under consideration, recalling schizoid personality disorder as the main descriptive framework, and its secondary corollaries determined by the remaining secondary traits.

3. The emotional profile of the 14-19-year-old subpopulation and (in a lesser form) of the 20-25-year-old sub-population appears to be severely impaired and evolutionarily delayed compared to the expected figure, concerning the reference age and the degree of maturity of one's emotional perception (immaturity that will be found, albeit only in some aspects, in the more adult subgroups).

4. Social biases about Hikikomori behavior reinforce in the patient's cognitive-behavioral profile the increased and growing need for social closure and withdrawal, which they feel is pressing and intrusive.

5. The Italian phenomenon of hikikomori has a greater tendency to occur in the male group (80/98, 81.6%) and those geographically native to North Italy (Valle d'Aosta, Piedmont, Liguria, Lombardy, Veneto, Trentino Alto-Adige, Friuli, Emilia Romagna) and Central-Italy (Tuscany, Umbria, Marche, Abruzzo, Molise, Latium, Sardinia), and the more rural areas far from urban centers, than in South-Italy (Campania, Puglia, Basilicata, Calabria, Sicily).

Table 1: Population sample for CG (total numerousness).

Age	Male	Female	Total
14-19	19 (19.3%)	5 (5.2%)	24 (24.5%)
20-25	16 (16.3%)	3 (3.1%)	19 (19.4%)
26-31	13 (13.3%)	2 (2%)	15 (15.3%)
32-37	14 (14.2%)	3 (3.1%)	17 (17.3%)
38-43	11 (11.3%)	2 (2%)	13 (13.3%)
44-49	7 (7.2%)	3 (3%)	10 (10.2%)
Total	80 (81.6%)	18 (18.4%)	98 (100%)

Table 2: Population sample for CG (numerousness/geographic profiles - Italy).

	Male			Female			Total		
Age	*Northern*	*Central*	*Southern*	*Northern*	*Central*	*Southern*	*Northern*	*Central*	*Southern*
14-19	11 (11.3%)	6 (6.1%)	2 (2%)	3 (3%)	1 (1%)	1 (1%)	14	7	3
20-25	9 (9.1%)	5 (5.1%)	2 (2%)	2 (2%)	1 (1%)	0 (1%)	11	6	2
26-31	7 (7.2%)	4 (4.1%)	2 (2%)	1 (1%)	1 (1%)	0 (1%)	8	5	2
32-37	8 (8.1%)	4 (4.1%)	2 (2%)	1 (1%)	2 (2%)	0 (1%)	9	6	2
38-43	5 (5.1%)	4 (4.1%)	2 (2%)	1 (1%)	1 (1%)	0 (1%)	6	5	2
44-49	5 (5%)	2 (2%)	0 (0%)	2 (2%)	1 (1%)	0 (1%)	7	3	0
Total	45 (45.9%)	25 (25.5%)	10 (10.2%)	10 (10.2%)	7 (7.2%)	1 (1%)	55 (56.3%)	32 (32.4%)	11 (11.3%)

Table 3: Population sample (total numerousness) for Cg.

Age	Male	Female	Total
14-19	19 (19.3%)	5 (5.2%)	24 (24.5%)
20-25	16 (16.3%)	3 (3.1%)	19 (19.4%)
26-31	13 (13.3%)	2 (2%)	15 (15.3%)
32-37	14 (14.2%)	3 (3.1%)	17 (17.3%)
38-43	11 (11.3%)	2 (2%)	13 (13.3%)
44-49	7 (7.2%)	3 (3%)	10 (10.2%)
Total	80 (81.6%)	18 (18.4%)	98 (100%)

6. The depressive symptomatological manifestation of the Hikikomori is described by the patients in a manner suggestive of and consistent with the depressive forms known in the literature, however, delving into the symptomatological universe in the clinical interview reveals three net differentiating factors, which reinforce the conclusive outcome of this study: a) the depressive symptoms described originate from an alteration of one's emotional state resulting from a continuous sense of emptiness and boredom, much closer to the moods of borderline patients; b) the feeling of frustration is dysfunctionally managed, leading to the fulfillment of more immature and childish needs to feel protected and in a safe place (e.g: prevalence of the use of technology and video games); c) the lack of future, well-defined and clear-cut planning, together with a dysfunctional emotional relationship in one's family and social network, leads to emotional closure and social withdrawal, thus reinforcing the typical traits of schizoid disorder.

The third stage of the research focused on the administration of the battery of questionnaires for CG and these revealed the following results:

1. *Administration of the Perrotta Integrative Clinical Interviews (PICI-2):* Based on the PICI-2, it was found that the emerging primary disorder turns out to be schizoid personality disorder (98/98, 100%); followed by emerging secondary disorders by a depressive personality disorder, narcissistic covert personality disorder, bipolar personality disorder with depressive prevalence, obsessive personality disorder, avoidant personality disorder, and somatic personality disorder. The analysis of functional traits also reported the marked dysfunctional tendency of the classes referring to self-control, sensitivity, Ego-Id comparison, emotionality, ego stability, safety, and relational functionality, again reiterating the marked dysfunctional tendency of the clinical population. The preference for administering the PICI-2 over other widely validated and used psychometric tests, such as the MMPI-2, was for reasons of expediency: in fact, previous research has demonstrated the effectiveness and efficiency, sometimes better indicated, of the PICI-2 over the MMPI-2, in terms of performance and completeness of diagnosis.

2. *Administration of the Perrotta Individual Sexual Matrix Questionnaire (PSM-Q):* According to the PSM-Q, 94/98 (95.9%) of the participants exhibit a lack of acceptance of their sexual dimensions, enacting avoidant, hyposexual, or markedly directed toward perverse sexuality and dysfunctional conduct. In addition, 91/98 (92.8%) report having experienced severe psychological or physical abuse at a young age, intra-parental relational imbalances, or otherwise a sexual upbringing that was not open and lacked free communication (a fact that is opposite to the literature that denies a relationship between the condition of hikikomori and childhood and/or family psychological trauma).

3. *Administration of the Perrotta Human Defense Mechanisms Questionnaire (PDM-Q):* The administration of the questionnaire reported the following data: in 98/98 (100%) values of 3, 4, and 5 were found on the mechanisms of isolation, denial, regression, reactive formation, denial, projection, removal, withdrawal, instinct, repression, and idealization, confirming the widespread psychopathological tendency of the framework of ego function.

The same steps were also taken for the Cg, noting the following:

1. *Administration of the Perrotta Integrative Clinical Interviews (PICI-2):* Based on the PICI-2, it was found that the psychopathological distribution (with at least 5 traits) was uniform, with the majority tendencies for neurotic disorders (23/98, 23.5%), followed by borderline (15/98, 15.3%) and more sporadic psychotic disorders (4/98, 4.1%), for a total of 42/98 (42.9%). The pathological differential between the two groups (CG/Cg) is + 57.1%. The preference for administering the PICI-2 over other widely validated and used psychometric tests, such as the MMPI-2 [64], was for reasons of expediency: in fact, previous research has demonstrated the effectiveness and efficiency, sometimes better indicated, of the PICI-2 over the MMPI-2, in terms of performance and completeness of diagnosis.

2. *Administration of the Perrotta Individual Sexual Matrix Questionnaire (PSM-Q):* According to the PSM-Q, 44/98 (44.9%) of the participants exhibit a lack of acceptance of their sexual dimensions, enacting avoidant, hyposexual/hypersexual or markedly directed toward perverse sexuality and dysfunctional conduct, with a pathological differential between the two groups (CG/Cg) of + 51%. In addition, 57/98 (58.2%) report having experienced severe psychological or physical abuse at a young age, intra-parental relational imbalances, or otherwise a sexual upbringing that was not open and lacked free communication, with a pathological differential between the two groups (CG/Cg) of + 34.6%.

3. *Administration of the Perrotta Human Defense Mechanisms Questionnaire (PDM-Q):* The administration of the questionnaire reported the following data: in 47/98

(47.9%) values of 3, 4, and 5 pathological trends were found on a uniform distribution of mechanisms, and the pathological differential between the two groups (CG/Cg) is 52.1%.

Statistical analyses performed show clear significance (*p* = ≤ 0.001) among all psychometric tests administered, between the clinical and control groups, as the following tables show (Tables 4,5).

Discussion and limits

The statistical analysis brings out the clear significance between the psychometric test outcomes of the two groups (clinical and control), with an absolute prevalence of the schizoid personality matrix (PICI-2) as the primary disorder, and a variegated corollary of secondary dysfunctional traits arising from depressive, bipolar, narcissistic covert, obsessive, dependent and avoidant disorder; the analysis of functional traits also reported the marked dysfunctional tendency of the classes referring to self-control, sensitivity, Ego-Id comparison, emotionality, ego stability, safety, and relational functionality, again reiterating the marked dysfunctional tendency of the clinical population. Medesimo discourse is reiterated by analyzing the test results on defense mechanisms, which confirm the dysfunctional prevalence in the selected population of the mechanisms of isolation, denial, regression, reactive formation, denial, projection, removal, withdrawal, instinct, repression, and idealization, confirming the widespread psychopathological tendency of the framework of ego function. The investigation of the sexual matrix then leaves no doubt about the subjective impact of childhood and family trauma, which confirms a lack of acceptance of one's sexual dimension, enacting avoidant sexuality, hyposexual or markedly directed toward perversion and dysfunctional behaviors, then reporting having suffered severe psychological or physical abuse at a young age, intra-parental relational imbalances, or otherwise a sexual upbringing that was not open and lacked free communication (a finding at odds with the literature that denies a relationship between the condition of hikikomori and childhood and/or family psychological trauma). The present research confirms the theoretical hypothesis of descriptive sufficiency contained in the nosography of psychopathological disorders already known in the literature, refuting the hypothesis of the need to identify this phenomenon according to a new descriptive framework (called Hikikomori syndrome). This syndrome must be framed as a specific phenomenon and not as a syndrome or a new psychopathological disorder since the symptomatological descriptions are comparable to the already known schizoid personality disorder; the symptomatological differences between patients are to be framed according to a logic of correctives determined by the presence of one or more secondary psychopathological traits that draw a more complex personality picture than the simple nosographic diagnosis of the DSM-V. This is also confirmed by the investigation of the patients' sexual dimension (called the individual sexual matrix), which shows in almost the entirety of the selected population (94/98; 95.9%) a lack of acceptance of their sexual dimension, enacting avoidant, hyposexual or markedly directed behaviors toward perverse and dysfunctional sexuality; in addition, almost the entirety of the same sample (91/98; 92.8%) reports having suffered severe psychological or physical abuse at a young age, intra-parental relational imbalances, or otherwise a sexual upbringing that was not open and lacked free communication.

Conclusion

Hikikomori syndrome is compatible with the dysfunctional traits described in schizoid personality disorder, while the symptomatological differences among patients are to be framed according to a logic of correctives determined by the presence of one or more secondary psychopathological traits that draw a more complex personality picture than the simple nosographic diagnosis of the DSM-V. This is also confirmed by the investigation of the sexual dimension of the patients, which shows in almost all of the selected population (94/98; 95.9%) a lack of acceptance of their sexual dimension, enacting avoidant, hyposexual or markedly directed behaviors toward perverse and dysfunctional sexuality; severe psychological abuse and abuse of the person are also described in almost all of the same sample (91/98; 92. 8%), severe psychological and physical abuse at a young age, intra-parental relational

Table 4: S.P.S.S., T-test for tests and CG/Cg pathological differential.

Test	CG	Cg	Δ CG/Cg	Mead ± SD	P
PICI	100%	42.9%	+ 57.1%	CG = 173.5 ± 28.4	≤ 0.001
				Cg = 85.6 ± 14.2	
PSM-1	92.1%	44.9%	+ 51%	CG = 32.2 ± 8.7	≤ 0.001
				Cg = 18.6 ± 3.3	
PSM-2	92.8%	58.2%	+ 34.6%	CG = 6.0 ± 0.8	≤ 0.001
				Cg = 3.2 ± 0.6	
PDM	100%	47.9%	+ 52.1%	CG = 88.2 ± 7.2	≤ 0.001
				Cg = 59.4 ± 7.8	

Table 5: S.P.S.S., T-test for tests and groups.

Test	Groups	Mead ± SD (CG)	Mead ± SD (Cg)	p
PICI	1 (14-19 y)	168.2 ± 30.1	85.6 ± 14.2	≤ 0.001
	2 (20-25 y)	208.3 ± 11.4	91.0 ± 12.7	≤ 0.001
	3 (26-31 y)	197.6 ± 47.2	81.5 ± 12.7	≤ 0.001
	4 (32-37 y)	190.6 ± 17.6	94.4 ± 15.8	≤ 0.001
	5 (38-43 y)	178.4 ± 7.3	95.7 ± 11.1	≤ 0.001
	6 (44-49 y)	150.5 ± 21.7	84.0 ± 10.9	≤ 0.001
PSM-1	1 (14-19 y)	32.4 ± 8.9	18.0 ± 3.2	≤ 0.001
	2 (20-25 y)	29.5 ± 10.2	18.9 ± 3.6	≤ 0.001
	3 (26-31 y)	29.7 ± 9.6	19.0 ± 4.1	≤ 0.001
	4 (32-37 y)	33.2 ± 10.4	18.9 ± 2.4	≤ 0.001
	5 (38-43 y)	34.5 ± 5.8	17.3 ± 6.5	≤ 0.001
	6 (44-49 y)	33.1 ± 7.5	17.5 ± 2.6	≤ 0.001
PSM-2	1 (14-19 y)	6.0 ± 0.8	3.2 ± 0.6	≤ 0.001
	2 (20-25 y)	5.3 ± 0.6	3.2 ± 1.4	≤ 0.001
	3 (26-31 y)	5.9 ± 0.8	3.0 ± 0.9	≤ 0.001
	4 (32-37 y)	5.6 ± 0.9	2.8 ± 0.8	≤ 0.001
	5 (38-43 y)	5.2 ± 0.6	2.7 ± 0.7	≤ 0.001
	6 (44-49 y)	5.5 ± 0.9	2.9 ± 0.8	≤ 0.001
PDM	1 (14-19 y)	86.8 ± 7.9	59.3 ± 7.7	≤ 0.001
	2 (20-25 y)	84.9 ± 5.5	57.3 ± 4.8	≤ 0.001
	3 (26-31 y)	83.4 ± 5.0	54.8 ± 4.9	≤ 0.001
	4 (32-37 y)	81.5 ± 5.1	51.4 ± 5.2	≤ 0.001
	5 (38-43 y)	82.7 ± 4.9	50.5 ± 5.0	≤ 0.001
	6 (44-49 y)	82.9 ± 5.0	48.3 ± 5.3	≤ 0.001

imbalances or otherwise a sexual upbringing that is not open and lacks free communication, capable of impacting the future quality of personal relational styles.

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