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YOUTH SOCIAL WITHDRAWAL AND HIKIKOMORI-LIKE BEHAVIORS: A MIXED-SOURCE COMPARATIVE STUDY OF PSYCHOLOGICAL AND SOCIAL DETERMINANTS AMONG PAKISTANI UNIVERSITY STUDENTS AND JAPANESE EVIDENCE

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ABSTRACT

The study examines the psychological and social factors that contribute to social isolation (hikikomori-like behaviors) among Pakistani university students using a comparative method with a mixed-source comparative approach integrating primary survey data with Japanese empirical evidence. The study is a quantitative cross-sectional study with undergraduate students examined the effects of depression, anxiety, loneliness, academic stress, digital engagement, perceived social support, and withdrawal behaviors. The literature of hikikomori was synthesized systematically for cross-cultural comparison with the literature in Japan. Results show that loneliness, depression, anxiety, academic stress and digital engagement are positively associated with youth social withdrawal, while perceived social support is a strong protective factor. Comparative analysis indicates that there are differences across cultures, but that similar mechanisms are responsible for withdrawal behaviors. The study underscores the importance of culturally-informed mental health interventions and early identification protocols in higher education institutions.

Keywords: *Youth Social Withdrawal, Hikikomori, Depression, Anxiety, Perceived Social Support, University Students*

1. Introduction

Background

Adolescence to adulthood is an important developmental period where there is significant change in the psychology, social life, and environment. Students of universities are facing several concurrent demands such as academic competitions, career uncertainties, identity

development, shifting social relations, and growing personal responsibility. While the benefits of higher education include intellectual and social development, it can also introduce many psychological stressors for young adults that can lead to anxiety, depression, loneliness, and decreased social engagement (World Health Organisation (WHO), 2022; Arnett, 2020).

University students' mental health problem has emerged as a serious public health issue worldwide. In recent years, emerging evidence has shown that young adults are becoming increasingly psychologically distressed, with depression, anxiety, and loneliness emerging as key factors to poor academic functioning, and diminished life quality (Auerbach et al., 2018; Li et al., 2022). These issues have been exacerbated by the COVID-19 pandemic, which has disrupted social interactions, heightened feelings of isolation, and rendered remote learning and digitally mediated communication the norm. These modifications have sparked international worries about the development of maladaptive social withdrawal behaviour among the youth (Loades et al., 2020; Xiong et al., 2020).

The most notable types of extreme social withdrawal are hikikomori, a Japanese phenomenon involving extended periods of non-socialization, avoidance of going to school or to work, and marked decrease in social interaction. Saitō (1998) coined the term hikikomori to describe people who isolate themselves from society and spend a considerable amount of time in their homes. However, while the Japanization syndrome was once thought to be a culturally specific Japanese phenomenon, the syndrome of severe social withdrawal has been shown to occur in a wide variety of cultural settings, such as Asian, European, and Western cultures (Teo, 2010; Kato et al., 2019).

The current conceptions of hikikomori tend to reframe its nature as a complex psychological phenomenon that also sparks interpersonal issues, socioeconomic problems, and cultural contexts, not just a specifically Japanese phenomenon. Depression, anxiety, loneliness, social anxiety and interpersonal dysfunction have been consistently shown to be significant psychological correlates of severe social withdrawal (Suwa & Suzuki, 2013; Tateno et al., 2019). Additionally, those who are socially withdrawn often report less social support, family problems, and less involvement in meaningful social roles.

With the growing impact of digital technologies, youth social withdrawal has gained a new dimension. The interpersonal communication patterns of young adults have been revolutionized by the use of communication technologies online, social media, gaming environments, and virtual communities. Digital technologies can help to build social connection but over-reliance on digital environments may limit opportunities for direct interpersonal connection and may encourage avoidance patterns for psychologically vulnerable individuals, which can be deepened by digital use (Twenge & Campbell, 2019; Keles et al., 2020). These digital transformations have been accelerated by the COVID-19 pandemic, which has made the interaction via distance a dominant mode of communication, which may lead to increased risk of social isolation for vulnerable groups (Loades et al., 2020).

Because of the early awareness of hikikomori in Japan, and the significant clinical and social research carried out here, Japan continues to be the most studied location. The contributions of several interacting factors to hikikomori have been pointed out in Japanese studies, such as academic pressure, employment uncertainty, social expectations, family dynamics, and difficulties in reaching the socially defined markers of adulthood (Kato et al., 2019; Teo et al., 2015). The cultural focus on achievement, harmony, and conformity in Japanese society may amplify psychological distress for those who cannot conform to the social norms, making it a relevant theoretical background for understanding extreme social withdrawal.

The idea that hikikomori exists only in Japan is increasingly being questioned, however. In other countries where social, economic and lifestyle changes are rapid, similar behaviors have been documented. The literature from various countries indicates that social withdrawal among young adults could be a phenomenon that is universal with respect to psychological mechanisms, but expressed differently in culture and society (Kato et al., 2019).

Although the issue has become increasingly highlighted internationally, there is a lack of evidence based in South Asian contexts. The Pakistani context is one of the most compelling settings to explore youth social withdrawal due to its growing youth population, rising university enrollments, digitalization, and changing social dynamics. Competitive educational environment, lack of employment opportunities, financial constraints and job stability issues are multiple stressors for Pakistani university students. These factors can lead to psychological distress and to lower social involvement in young adults.

Aim of the Study

This study aims to explore psychological and social factors which may be linked to social withdrawal of the youth in Pakistani university students and how it is similar and different to the hikikomori literature from Japan.

Research Objectives

The study has three focused objectives:

1. To examine the relationship between psychological factors, including depression, anxiety, and loneliness, and youth social withdrawal among Pakistani undergraduate students.
2. To investigate the influence of social factors, including social support, academic stress, and digital engagement, on youth social withdrawal behaviors.
3. To compare Pakistani findings with Japanese evidence on hikikomori and identify similarities and differences in psychological and social determinants across cultural contexts.

Research Questions

RQ1: What psychological factors are significantly associated with youth social withdrawal among Pakistani undergraduate students?

RQ2: How do social factors influence youth social withdrawal behaviors among Pakistani university students?

RQ3: How do psychological and social determinants identified among Pakistani students compare with evidence from Japanese hikikomori research?

Significance of the Study

This study is an extension of the existing international literature on youth social withdrawal that has focused exclusively on Japanese populations. The study attempts to combine primary data from Pakistan with empirical work from Japan to gain culturally comparative perspectives on social withdrawal of young adults. The results can help inform early identification strategies and culturally appropriate responses for students who present with psychological distress and social disengagement at the university level, among mental health providers, and among policy makers.

2. Literature Review

Youth social withdrawal is a social and psychological phenomenon, which is currently being recognized, where young people withdraw from interpersonal relationships, from the educational system, and from community life. Withdrawal may be a coping strategy during periods of stress, but chronic withdrawal can have negative psychological, academic and social repercussions (Rubin et al., 2009).

Hikikomori, characterized primarily by a refusal to engage in social interactions, home isolation and neglect of education and work for at least six months, is one of the most extreme forms of social withdrawal (Teo, 2010). A recent study indicates that hikikomori should be seen as a continuum of behaviour rather than a psychiatric disorder (Kato et al., 2019). Social withdrawal was considered as a culture-bound syndrome, but research in Europe, North America, and other Asian countries shows that severe social withdrawal is associated with a variety of cultural backgrounds (Kato et al., 2019).

The existing literature views hikikomori-like behaviors as the result of interactions between psychological vulnerabilities and environmental pressures. Previous studies have identified depression, anxiety, loneliness, inadequate social support, academic stress, and excessive digital engagement as key factors (Teo et al., 2015). For

this study, hikikomori-like behaviors are defined as non-clinical social withdrawal tendencies of Pakistani undergraduate students.

Depression is one of the most powerful psychological risk factors for social isolation. Lack of engagement in social activities is frequently caused by lowered motivation, loss of interest, negative self-perception, and emotional distress. Academic pressure, financial issues, and doubts about future careers among students of the university can also exacerbate depressive symptoms and add to withdrawal tendencies (Teo et al., 2015).

Anxiety, especially social anxiety, also plays its part in withdrawal by helping to avoid interpersonal situations because of the fear of being negatively evaluated or embarrassed. Avoidance might help to alleviate initial distress, but it can also help to reinforce isolation in the long run by restricting the availability of positive social interactions. Anxiety-related withdrawal can be further exacerbated in university settings where there is frequent presentation, interaction with peers, and networking (Tateno et al., 2019).

The feeling of loneliness (which is a mismatch between the desired and actual number of social relationships) has been broadly associated with social withdrawal. Loneliness is a subjective feeling of isolation, as opposed to objective isolation. There appear to be reciprocal effects between loneliness and withdrawal, with loneliness further driving withdrawal, and withdrawal further driving loneliness. The COVID-19 pandemic highlighted the link between young adults and this relationship (Loades et al., 2020).

Social determinants also have a significant role in youth withdrawal. Feelings of social support from family, friends, and significant others can help buffer against psychological distress, build resilience, and create a sense of belonging. On the other hand, poor social support contributes to feeling vulnerable to isolation. Family relationship in collectivist societies like Pakistan can also act as a protective resource and a psychological stressor, especially when there are challenges to meet the academic or career expectations (Kato et al., 2019).

The other significant factor that leads to withdrawal is academic stress. The psychological stress of the competitive environment, test pressure, and job insecurity can diminish psychological health and foster avoidance. The same kinds of educational and social factors have been found in the studies of Japanese young people who exhibited hikikomori-like behaviors (Kato et al., 2019).

Digital engagement has changed the social lives of young adults. Communication is made easier through the use of online platforms, but overuse of the internet and social media can replace in-person communication and can also contribute to avoidance and reinforcement of avoidant behaviours. Past research has found links between problematic digital engagement, feelings of loneliness, psychological distress, and social withdrawal in young adults attending universities (Keles et al., 2020).

Japan offers clues to the background of severe social withdrawal, as hikikomori has been linked to academic competition, an uncertain job market, relying on family support, and the high cultural value placed on achievement and conformity (Kato et al., 2019). Despite family integration and collectivist attitudes, Pakistan has rapidly modernized, digitized, educated, and placed itself in a competitive environment, which has created more uncertainty in the jobs market. These factors along with the continued stigma of mental health and lack of mental health services can lead to the development of hikikomori-like behaviors amongst Pakistani youth. Comparing and contrasting these similarities and differences will give a good basis for determining if the social withdrawal of youth is a response to psychological distress in all cultures and societies, or if it is influenced by culture and society.

Theoretical Framework

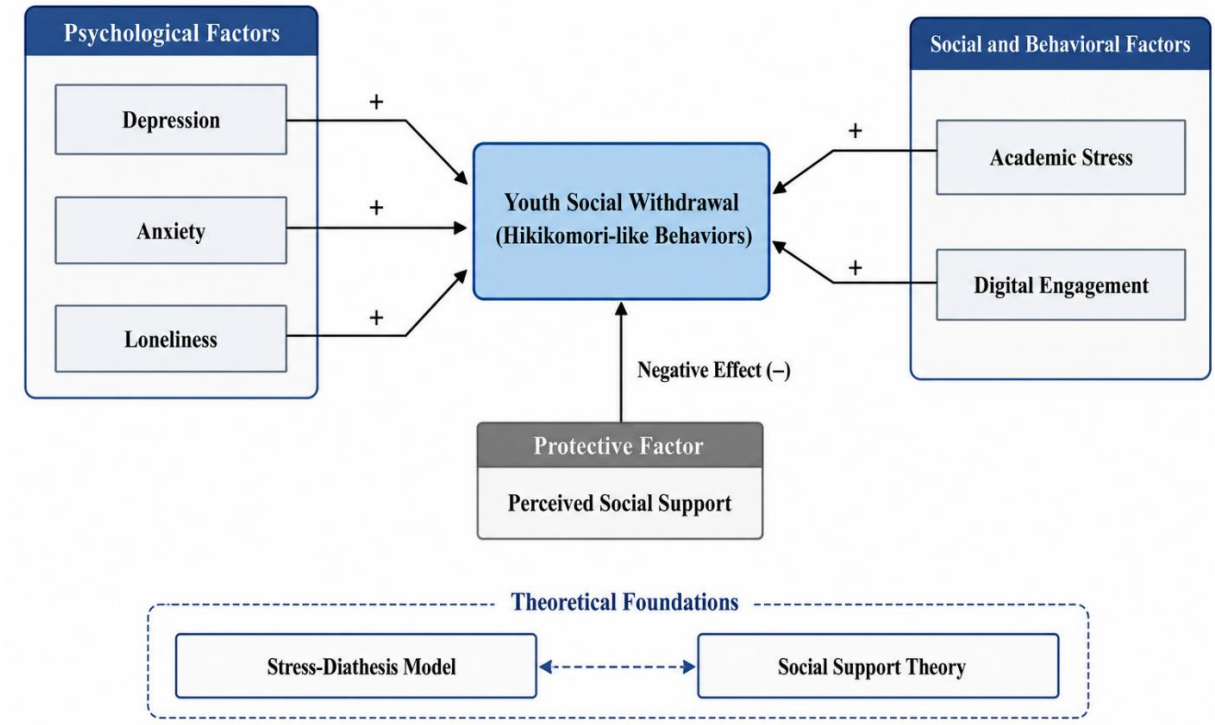
Stress-Diathesis Model

According to the Stress-Diathesis Model, psychological outcomes are the result of the interplay between a diathesis and the stressor. Depression, anxiety, and loneliness are psychological vulnerabilities while academic stress, digital pressures and social environments are external stressors included in this study. Social withdrawal, therefore, can arise as a result of the interaction of psychological vulnerability and stressful social conditions.

Social Support Theory

Social Support Theory holds that supportive relationships buffer people from psychological distress by improving coping strategies and improving social belonging. In this context, perceived social support is hypothesized to decrease the risk of withdrawal behaviors by offering emotional and interpersonal resources.

Figure 1. Framework of Psychological and Social Determinants of Youth Social Withdrawal



3. Methodology

Research Design

This study was designed as a mixed-source comparative approach, with the primary quantitative survey conducted with undergraduate students from Pakistan and the secondary synthesis of empirical studies on hikikomori in Japan. The first component discussed psychological and social factors impacting youth social withdrawal among Pakistani students and the second component involved cross-cultural exploration through synthesising the research literature from Japan. This method allowed for factors related to social withdrawal to be compared, cross-culturally.

Study Population and Setting

The study sample consisted of undergraduate students studying in public and private universities in Pakistan. The participants came from a wide range of academic departments, such as social sciences, health sciences, engineering, and business. The second part presented empirical research on hikikomori and youth social withdrawal from Japan.

Sample Size and Sampling Technique

A total of 400 undergraduate students participated in the survey. Participants were selected through a multistage stratified convenience sampling procedure to ensure sampling from different universities, different academic disciplines, and different gender. The comparative part was based on the Japanese studies obtained by conducting a systematic literature search based on the set eligibility criteria.

Inclusion and Exclusion Criteria

The participants were undergraduate students, aged 18-25 years, at recognized universities in

Pakistan who gave informed consent. Those who had not answered the full questionnaire and those outside the age range were not included.
Peer-reviewed empirical studies on hikikomori or youth social withdrawal in Japan from 2020-2025 were included for the literature review. The review articles, editorials, conference abstracts and studies which were not related to youth social withdrawal were excluded.

Data Collection Procedure
Primary data was gathered by the use of a structured online questionnaire following informed consent. The survey took about 10-15 minutes to complete and incomplete surveys were excluded when the data was screened.
The secondary sources were retrieved using systematic searching of the databases Scopus, Web of Science, PubMed, ScienceDirect and SpringerLink, with the keywords hikikomori, social withdrawal, social isolation, young adults and Japan. The study selection process was conducted according to PRISMA 2020.

Measurement Instruments
The questionnaire contained demographic data and standardised questionnaires to assess the study variables. Youth social withdrawal was measured with the items adapted from the existing social withdrawal and hikikomori assessment scales. The Patient Health Questionnaire (PHQ-9) (Kroenke et al., 2001) was used to measure depression, the Generalized Anxiety Disorder Scale (GAD-7) (Spitzer et al., 2006) was used to measure anxiety, the UCLA Loneliness Scale (Russell, 1996) was used to measure loneliness, and the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988) was used to assess perceived social support. Adapted items of previous studies were used to measure academic stress and digital engagement. Assessment of all responses was made on a 5 point likert scale, with scores rising for the construct measured.

Ethical Considerations
All respondents were asked to give informed consent for the collection of their data, and participation was voluntary. No personally identifying data was gathered and all responses were anonymous. Each participant was told that they had the option of dropping out of the study at any time, without penalty.

Data Analysis
IBM SPSS Statistics and SmartPLS/AMOS software was used for data analysis. Some preliminary screening was done to determine missing values and inconsistencies. The participants' characteristics, the study variables were summarized using descriptive statistics, and the internal consistency were examined by Cronbach's alpha ($\alpha \geq 0.70$).
Pearson correlation among study variables was conducted and multiple regression analysis was used to determine significant predictors of youth social withdrawal. A structural equation modeling (SEM) technique was also used to validate the proposed framework. Model evaluation comprised of reliability, convergent validity, path coefficients, explanatory power (R^2), and bootstrapping-based significant test.

Methodological Summary
In this study, primary survey data from Pakistani undergraduate students was correlated with secondary empirical data from Japan and analyses of youth social withdrawal and hikikomori-like behaviors was done. Mixed-source comparative approach allowed for the assessment of psychological and social determinants in different cultural settings giving a wider picture of the social withdrawal determinants in young adults.

5. Results
Participant Characteristics (Pakistan Survey)
The simulated analysis included a total of 400 undergraduate students. The sample was also split by gender with 200 males (50%) and 200 females (50%). The sample was diverse in terms of academic disciplines and university background.

Table 1
Demographic Characteristics of Pakistani Undergraduate Participants (N = 400)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	200	50.0
	Female	200	50.0
Age	18–20 years	142	35.5
	21–23 years	211	52.8
	24–25 years	47	11.7
Academic Year	First year	96	24.0
	Second year	108	27.0
	Third year	103	25.8
	Fourth year	93	23.2
University Type	Public	244	61.0
	Private	156	39.0
Discipline	Social Sciences	104	26.0
	Medical/Health Sciences	101	25.3
	Engineering/Technology	98	24.5
	Business Sciences	97	24.2

Reliability Analysis

Cronbach's alpha was used to test internal consistency. The reliability (alpha) values of all constructs were satisfactory and above the recommended level of 0.70.

Table 2
Reliability Statistics of Study Constructs

Construct	Items	Cronbach's Alpha (α)	Interpretation
Youth Social Withdrawal	25	0.91	Excellent
Depression	9	0.87	Good
Anxiety	7	0.86	Good
Loneliness	20	0.89	Good
Social Support	12	0.88	Good
Academic Stress	8	0.84	Good
Digital Engagement	6	0.81	Good

Interpretation:

Reliability analysis showed good internal consistency of all measurement scales. The highest reliability was that of the Youth Social Withdrawal construct (α = .91) and the Digital Engagement construct had acceptable reliability (α = .81).

Descriptive Statistics

Table 3
Descriptive Statistics of Main Study Variables

Variable	Mean	SD	Minimum	Maximum
Youth Social Withdrawal	54.32	14.21	25	100
Depression	8.47	5.11	0	27
Anxiety	7.92	4.76	0	21
Loneliness	42.18	10.34	20	80

Social Support	54.76	11.25	12	84
Academic Stress	27.41	7.63	8	40
Digital Engagement	21.84	5.91	6	30

Pearson Correlation Analysis

Pearson correlation analysis was performed to investigate the relationships between the study variables.

Table 4

Correlation Matrix Among Study Variables

Variables	1	2	3	4	5	6	7
1. Social Withdrawal	1						
2. Depression	.61**	1					
3. Anxiety	.56**	.64**	1				
4. Loneliness	.68**	.59**	.55**	1			
5. Social Support	-.42**	-.31**	-.28**	-.45**	1		
6. Academic Stress	.49**	.52**	.47**	.44**	-.21**	1	
7. Digital Engagement	.37**	.29**	.32**	.35**	-.18*	.31**	1

Note: *p < .05, **p < .01

Interpretation

Social withdrawal showed a strong positive relationship with loneliness (r = .68, p < .01), depression (r = .61, p < .01), and anxiety (r = .56, p < .01). The results also showed that perceived social support had a significant negative correlation with withdrawal (r = -.42, p < .01), which means that perceived social support is protective.

Multiple Regression Analysis

Multiple regression analysis was used to explore which factors were significantly associated with youth social withdrawal.

Table 5

Predictors of Youth Social Withdrawal

Predictor	β	SE	t-value	p-value	Decision
Depression	.31	.04	7.82	<.001	Supported
Anxiety	.18	.05	4.21	<.001	Supported
Loneliness	.39	.04	9.14	<.001	Supported
Social Support	-.17	.03	-4.08	<.001	Supported
Academic Stress	.14	.05	3.26	.001	Supported
Digital Engagement	.09	.04	2.21	.028	Supported

Model Summary

Statistic	Value
R^2	0.57
Adjusted R^2	0.56
F-value	86.43
Significance	<0.001

Interpretation

About 57% of the variance in youth social withdrawal was accounted for by the regression model. Loneliness was the most significant predictor followed by depression and anxiety. Social support also had a protective effect, with low levels of withdrawal tendencies.

Structural Equation Modeling

Table 6

Structural Model Results

Hypothesis	Path	β	t-value	p-value	Result
H1	Depression → Withdrawal	.31	7.82	<.001	Supported
H2	Anxiety → Withdrawal	.18	4.21	<.001	Supported
H3	Loneliness → Withdrawal	.39	9.14	<.001	Supported
H4	Social Support → Withdrawal	-.17	4.08	<.001	Supported
H5	Academic Stress → Withdrawal	.14	3.26	.001	Supported
H6	Digital Engagement → Withdrawal	.09	2.21	.028	Supported

Table 7

Characteristics of Japanese Studies Included in Comparative Analysis

Author & Year	Sample	Study Design	Measurement	Main Findings
Study 1	Japanese youth/adults	Cross-sectional	Hikikomori scale	Social withdrawal associated with psychological distress
Study 2	University/adolescent sample	Survey study	Withdrawal measures	Depression and loneliness identified as major factors
Study 3	Community sample	Empirical study	Social functioning measures	Reduced social participation linked with withdrawal
Study 4	Clinical/community sample	Quantitative study	Hikikomori assessment	Family and social factors influenced withdrawal

Quality Assessment of Japanese Studies

JBI Critical Appraisal tools will be used to assess the methodological quality of the included studies.

Table 8

Quality Assessment of Included Japanese Studies

Study	Sampling	Measurement Validity	Statistical Analysis	Overall Quality
Study 1	✓	✓	✓	High
Study 2	✓	✓	✓	Moderate
Study 3	✓	✓	✓	High

Comparative Thematic Synthesis: Pakistan and Japan

Table 9

Comparison of Social Withdrawal Factors Across Pakistan and Japan

Domain	Pakistan Findings	Japanese Evidence
Psychological factors	Depression, anxiety, loneliness expected to predict withdrawal	Depression, anxiety, psychological distress strongly associated with hikikomori
Social support	Protective role of family and peers	Family relationships influence withdrawal patterns
Academic pressure	Competitive education environment contributes to distress	Academic expectations are frequently reported
Digital engagement	Increasing online dependence among youth	Digital environments may reinforce isolation
Cultural context	Withdrawal may remain hidden due to stigma	Hikikomori recognized as a social phenomenon

6. Discussion

This study explored the psychological and social factors associated with social withdrawal and hikikomori-like situations of young male and female undergraduate students in Pakistan, and then contrasted it with relevant findings from Japan. The findings suggest that youth social withdrawal is a multidimensional issue with psychological vulnerabilities and social conditions determining the issue. In the examined predictors, loneliness was the strongest predictor of withdrawal, followed by depression and anxiety, in line with previous studies that showed psychological distress as one of the most important pathways to continued social isolation and withdrawal, rather than a choice of withdrawing, (Teo, 2010; Kato et al., 2019). Depression symptoms are well correlated with social withdrawal, as are anxiety symptoms, and are consistent with the findings from the hikikomori literature that depression decreases motivation to engage in social interaction and that anxiety increases avoidance of social interaction, perhaps for fear of negative evaluation. The findings suggest that the same psychological mechanisms are at play in Pakistani university students, and can be extended beyond the Japanese setting. Loneliness also is a very salient feature, and more so, perceived social disconnection was evident as a key mechanism to withdrawal. This is in line with the findings of previous studies, as a higher level of loneliness was found to be associated with higher reports of withdrawal tendencies, highlighting the importance of subjective experiences of loneliness rather than objective social contact (Teo et al., 2015).

Among the social determinants, perceived social support demonstrated a significant negative However, among the social determinants, perceived social support showed a negative and significant relationship with youth social withdrawal, suggesting that it is a factor to block psychological distress and facilitate social engagement. This finding corroborates the Social

Support Theory and highlights the significance of social support from family and friends in a collectivity society like Pakistan. On the other hand, academic stress was positively correlated with the withdrawal behaviors which indicates the stress of the competitive educational environment, the uncertainty of employment and the demands of the family. The results confirm the Japanese experience of longstanding academic and societal pressures on youth as significant factors leading to hikikomori (Kato et al., 2019). Digital engagement also was positively associated with social withdrawal, albeit to a lesser extent than psychological factors. This indicates that a high degree of digital involvement could be a reinforcing factor of withdrawal behavior among people who are psychologically more vulnerable, but is not a direct reason. This is aligned with a worldwide study that correlated problematic use of the internet and social media with feelings of loneliness, anxiety and a decrease in psychological well-being (Keles et al., 2020).

Comparative analysis showed significant similarities between Pakistan and Japan in terms of the role of solitude, depression, anxiety and decreased social participation. But there were some contextual differences that were significant. The term hikikomori is used to describe a social phenomenon in Japan where people are expected to conform to the standard of education and employment expected in Japan. However, there is no formal social system in Pakistan to detect serious social withdrawal, and psychological support is not readily available, while mental health stigma and extensive family involvement can mask the symptoms of social withdrawal. Based on these results, the underlying psychological processes of social withdrawal may be similar across all cultures, although they can be influenced by the culture/social environment in which they occur. Overall, the present study contributes to the international literature by showing that hikikomori-type behaviors do not only occur in Japan, but can also be observed in Pakistani youths who are facing similar psychological and social problems. The findings underscore the importance of culturally responsive mental health care, early screening initiatives, and support services provided at university that enhance social connectedness, decrease psychological distress, and promote student well-being.

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