

# Research protocol: part 1

## Project summary

Internet Gaming Disorder (IGD) in adolescence is associated with cognitive, emotional, and psychosocial difficulties. Although India has an estimated 455 million gamers, there is a lack of combined, effective interventions to manage IGD. This randomized controlled trial included seventy-three adolescents and compared the effectiveness of Cognitive Behavioral Therapy (CBT; 15 weekly 90-minute sessions), Parent Psychoeducation (PPE; two sessions), a combined CBT+PPE intervention, and a control group. Pre–post changes, between-group post-intervention differences, and maintenance of effects over a six-month follow-up were analyzed using paired t-tests, ANOVA with post-hoc pairwise comparisons, and Repeated Measures ANOVA. The results showed that the combined CBT+PPE intervention was superior to CBT or PPE alone in reducing IGD and improving psychosocial well-being, whereas PPE alone showed a relapse in IGD during the follow-up period.

## General information

### Protocol Title:

Effect of CBT-IA Combined with Parent Psychoeducation on Improving Psychosocial Wellbeing among Adolescents with Internet Gaming Disorder

### Protocol Date:

17/06/2022

### Sponsor/Funder:

Self-funded (PhD research), Christ University, Bengaluru

Address: Christ University, Hosur Road, Bengaluru – 560029

### Investigator(s):

- Researcher: Shimil PV, PhD Scholar, Christ University, Bengaluru
  - Responsibilities: Principal investigator; responsible for study design, intervention delivery, data collection, analysis, and reporting
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  - Phone: 9048409985
- Supervisor: Dr. Palak Kanwar, PhD Supervisor, Christ University, Bengaluru
  - Responsibilities: Oversight of research design, methodology, ethical compliance, and data interpretation
  - Address: Christ University, Hosur Road, Bengaluru – 560029

- Email: palak.kanwar@christuniversity.in

Participant Recruitment Site:  
St. Aloysius University, Mangaluru-575003

**Clinical Laboratory / Technical Departments Involved:**

Not applicable – study involves behavioral interventions

**Rationale & background information**

IGD now affects between 1.3% and 19.9% of adolescents, with males reporting a higher frequency than girls. These behavioral addictions may have extremely significant effects, frequently having an effect on the person's familial and social connections as well as their obligations at school or at work. These issues also appear to contribute to concomitant mental health issues (such as social anxiety, depression, and phobias), which develop and remain as long as the activity continues (Undavalli et al., 2020).

Existing intervention research on Internet Gaming Disorder (IGD) in the Indian context is extremely limited. Notably, only a single Indian intervention study has specifically examined the effectiveness of a structured psychotherapeutic approach for IGD—namely, the multimodal CBT-based intervention conducted at NIMHANS by Sharma et al. (2022). While this study demonstrated significant reductions in IGD severity and improvements in quality of life, the intervention primarily focused on individual-level cognitive and behavioral components and did not incorporate parent psychoeducation, which represents a critical environmental and familial influence in adolescent gaming behavior. Moreover, existing Indian intervention studies lack comparison therapy arms, limiting the ability to determine the relative effectiveness of different therapeutic modalities. The absence of comparative interventions restricts conclusions regarding whether addressing environmental factors such as parenting practices, monitoring, and family dynamics enhances treatment outcomes beyond individual-focused CBT alone.

The inclusion of psychosocial well-being in this study enables a holistic evaluation of intervention effectiveness, capturing not only symptom reduction in IGD but also meaningful improvements in adolescents' emotional, social, and functional outcomes. This approach aligns with contemporary models of mental health that emphasize recovery, functioning, and quality of life rather than symptom remission alone.

CBT is a more successful form of treatment for internet gaming disorder. Existing therapy programs must be urgently improved; at the moment, this lack of research makes it difficult for them to do so. Adolescent patients require additional effective screening and treatment methods. Reduced IGD among teenagers is mostly due to parents. Families are a problem for the majority of teenagers with IGD (Teng et al., 2020b). Psychosocial health is impacted by IGD. There is a strong association between increased playtime and decreased psychological wellness. In order to control IGD in teenage males, this study will assess how well CBT paired with parent education works. One of the primary causes of gaming, cognitive distortion, will be significantly changed by CBT (Elik&Odaci,2013). Additionally, it enhances

impulsivity, emotional control, and time management. Psychoeducation aids in improving parents' comprehension of IGD and aids in the development of positive parent-adolescent relationships and effective communication (Sin & Lee Ai Cheng, 2022). In treating IGD, CBT paired with parent psychoeducation improves adherence and lowers adolescent dropout rate (Byrne et al., 2023). Health professionals can use this combo therapy to address IGD in adolescents and consequently enhance their psychosocial well-being in clinics, schools, and pre universities

### **Study goals and objectives**

#### **Objectives**

1. To assess the effectiveness of CBT-IA in reducing Internet Gaming Disorder (IGD) and Psychosocial Functioning Impairment (PFI) scores from pre-test to post-test among adolescents diagnosed with IGD over an eight-week intervention period.
2. To assess the effectiveness of Parent Psychoeducation in reducing IGD and PFI scores from pre-test to post-test among adolescents diagnosed with IGD over an eight-week intervention period.
3. To assess the effectiveness of CBT-IA combined with Parent Psychoeducation in reducing IGD and PFI scores from pre-test to post-test among adolescents diagnosed with IGD over an eight-week intervention period.
4. To assess whether all intervention groups (CBT-IA alone, Parent Psychoeducation alone, and CBT-IA + Parent Psychoeducation) demonstrate significantly greater reductions in IGD and PFI scores at post-test compared to the control group.
5. To assess the comparative effectiveness of CBT-IA combined with Parent Psychoeducation, Parent Psychoeducation alone, and CBT-IA alone in reducing IGD and PFI scores at post-test and 6-month follow-up.

#### **Study design**

A single-blind, parallel-arm randomized controlled trial was conducted to evaluate the effectiveness of Cognitive Behavioural Therapy for Internet Addiction (CBT-IA), parent psychoeducation, and their combination in improving psychosocial well-being among adolescents diagnosed with Internet Gaming Disorder (IGD). The trial consisted of four parallel arms: CBT-IA, Parent Psychoeducation, Combined CBT-IA + Parent Psychoeducation, and Control group (no intervention). Participants were randomly assigned to one of these arms and remained in their allocated group throughout the 15-week intervention period. A flow chart, Figure 2, gives clarity on this.

#### **Sample**

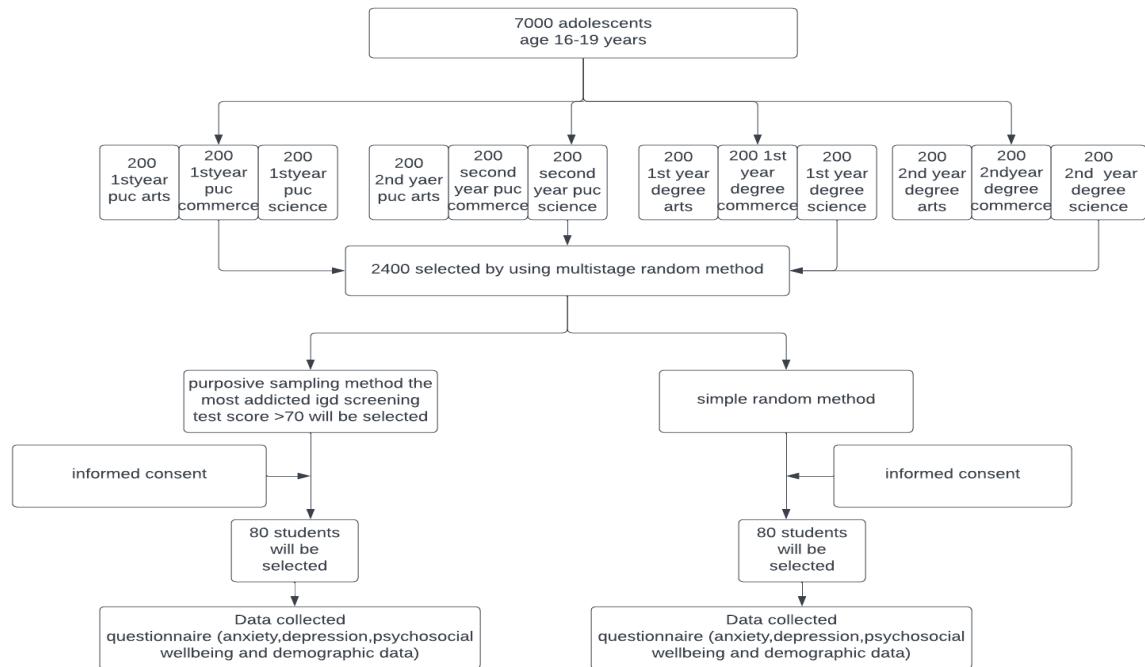
Samples were drawn from a population of approximately 7,000 adolescents enrolled in pre-university institutions in Mangalore, Karnataka. Initially, a pilot study was conducted among adolescents aged 16 to 19 years to explore patterns of internet gaming behaviour. Based

on these preliminary findings, stratified purposive sampling was used to select 82 adolescents identified as having severe Internet Gaming Disorder (IGD), as assessed by the IGD-20 scale. Two adolescents met the criteria for psychosis based on the PSQ and were therefore excluded from the study in accordance with the defined exclusion criteria shown in Figure 3.

An a priori power analysis was conducted using G\*Power version 3.1 to determine the minimum required sample size for the present four-group intervention study with repeated measurements. A repeated-measures ANOVA (within–between interaction) was selected, with three time points (pre-test, post-test, and follow-up) and four groups (CBT, CBT + Parent Psychoeducation, Parent Psychoeducation, and Control). Assuming a medium effect size ( $f = 0.25$ ),  $\alpha = .05$ , power  $(1-\beta) = .80$ , correlation among repeated measures = .50, and a no sphericity correction ( $\varepsilon$ ) of 1.0, the analysis indicated that a minimum sample size of 72 participants was required, corresponding to 18 participants per group. This sample size was considered adequate to detect statistically meaningful intervention effects across time and between groups.

In the PPE and CBT + PPE groups, the participating parent was typically the mother; however, if the mother was unavailable, the father or another primary caregiver participated in the psychoeducation sessions. For consistency in data management, these were recorded collectively under “parent characteristics.”

### Sample Selection



### Inclusion Criteria

- Adolescents aged 16 to 19 years
- Engaging in internet gaming for more than 20 hours per week during the past year

- Reporting battle royale games (e.g., PUBG, Free Fire) as their primary online gaming activity
- Scoring above >70 on the IGD-20 scale, indicating high levels of Internet Gaming Disorder
- Adolescents with comorbid symptoms of mild to moderate depression or anxiety were included, acknowledging these as potential confounding variables

### ***Exclusion Criteria***

- Current use of any psychiatric medication.
- Presence of psychotic symptoms as indicated by the Psychosis Screening Questionnaire (PSQ; Bebbington & Nayani, 1995)
- History of illegal substance use or gambling behavior

### **Methodology**

#### **Research Design**

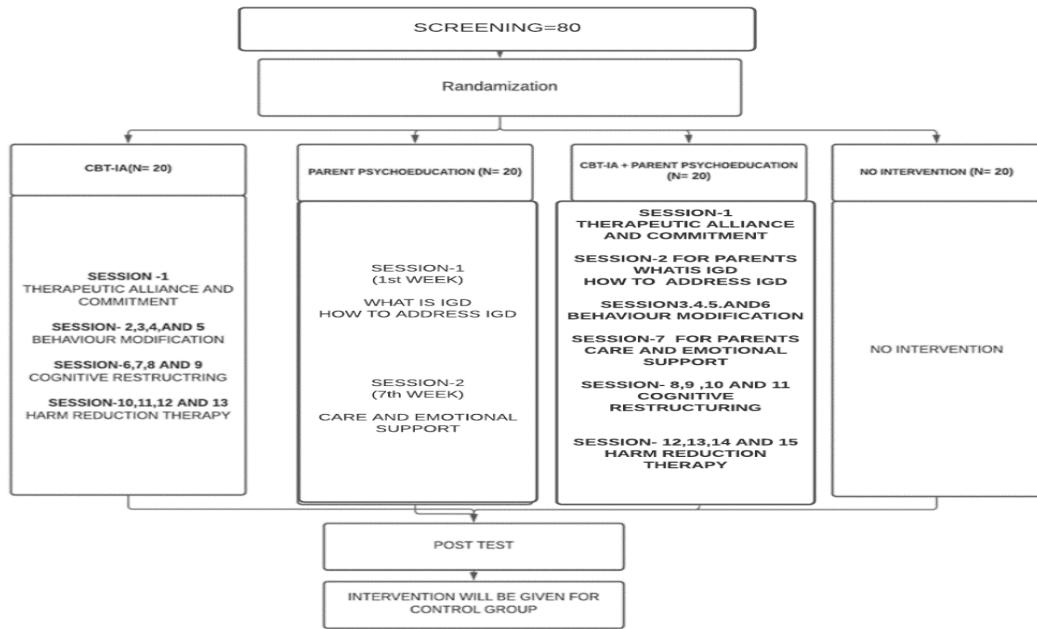
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#### **Intervention Overview**

The intervention for Internet Gaming Disorder (IGD) comprised three core therapeutic stages supported by Parent Psychoeducation (PPE), shown in Figure 5.

#### **Figure 5**

##### *Intervention Details*



### ***Therapeutic Alliance***

The initial stage focused on building a strong, trusting, and collaborative relationship between therapist and client. This involved demonstrating empathy, actively listening to the client's gaming experiences, validating both the positives and negatives, and collaboratively setting achievable goals. Motivational interviewing techniques were used to address ambivalence, and boundaries for the therapeutic process were established. For adolescents, parents or caregivers were engaged to ensure alignment with treatment goals.

### ***Behaviour Modification (CBT-IA Stage 1)***

This stage addressed maladaptive gaming habits through self-monitoring, time tracking, and gradual reduction of gaming hours. Clients identified triggers and implemented healthier offline activities such as hobbies, sports, or social interactions. Structured boundaries between work, leisure, and gaming were established to encourage balanced lifestyle patterns.

### ***Cognitive Restructuring (CBT-IA Stage 2)***

Cognitive distortions sustaining gaming behaviour were identified and challenged. Techniques like Socratic questioning and cognitive reframing helped replace irrational beliefs (e.g., "Gaming is the only thing I'm good at") with balanced alternatives. Motivational interviewing and reality testing addressed denial and built accountability for recovery.

### ***Harm Reduction and Relapse Prevention (CBT-IA Stage 3)***

This phase aimed to maintain recovery by identifying triggers, developing coping strategies, and encouraging responsible gaming practices rather than complete abstinence. Underlying issues such as anxiety or low self-esteem were addressed, and relapse prevention plans were developed using Habit Reversal Training. Social and emotional well-being was supported through offline connections, community engagement, and improved family communication.

### **Parent Psychoeducation (PPE)**

Two PPE sessions (Week 1 and Week 7) were provided. The first focused on educating parents about IGD, its symptoms, causes, and effects while fostering empathy and reducing stigma. The second guided parents in supportive problem-solving, setting healthy boundaries, promoting alternative activities, and addressing underlying emotional issues. Parents were equipped to become active partners in their child's recovery journey.

## **Measures**

### **Internet Gaming Disorder – IGD-20 Scale**

Although the IGD-20 Scale was originally developed by Pontes et al. (2014), it remains theoretically anchored in the DSM-5 diagnostic criteria for Internet Gaming Disorder, which continue to be the current official framework. The IGD-20 is a 20-item self-report scale, with items rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), yielding a total score range of 20–100, where higher scores indicate greater severity of disordered gaming. The scale has demonstrated excellent psychometric properties, with high internal consistency (Cronbach's  $\alpha$  ranging from .88 to .93) and strong construct validity, as supported by confirmatory factor analytic evidence in multiple studies. Criterion validity has been established through significant associations with functional impairment and related behavioral addiction measures. Importantly, the IGD-20 Scale has been re-established and empirically utilized in recent Indian research, including a clinical intervention study conducted at NIMHANS by Sharma et al. (2022), confirming its reliability, cultural validity, and clinical sensitivity in the Indian context.

### **Psychosis Screening Questionnaire (PSQ)**

The Psychosis Screening Questionnaire (PSQ) developed by Bebbington and Nayani (1995) is a brief screening instrument used to assess the presence of core psychotic symptoms. It evaluates five symptom domains: hypomania, thought interference, persecutory delusions, delusional mood, and auditory hallucinations. Each domain is assessed through a stem question followed by one or more probe questions, with responses recorded as "yes," "no," or "unsure." A symptom domain is considered positive only when all questions within that domain are endorsed, thereby enhancing the specificity of the screening process. Although the PSQ was originally developed in 1995, the symptom domains it assesses remain conceptually consistent with contemporary diagnostic frameworks, including the *DSM-5-TR* (American Psychiatric Association, 2022), which continues to define psychosis primarily in terms of hallucinations, delusions, and disturbances in thought and perception. The PSQ has demonstrated excellent psychometric performance, with reported sensitivity of 96.9% and specificity of 95.3%, supporting its continued relevance as a reliable screening instrument. In the present study, the PSQ was used solely as a preliminary screening tool prior to participant inclusion, specifically for screening and exclusion purposes rather than diagnostic assessment.

### **Hamilton Anxiety scale**

The Hamilton Anxiety Rating Scale (HAM-A) developed by Hamilton (1959) is one of the most widely used clinician-rated instruments for assessing the severity of anxiety symptoms

and continues to be extensively applied in contemporary clinical and research settings. The scale consists of 14 items measuring both psychic anxiety (mental agitation, fears, and psychological distress) and somatic anxiety (physical manifestations of anxiety), with each item rated on a 0–4 scale, yielding a total score range of 0–56 (<17 = mild; 18–24 = mild to moderate; 25–30 = moderate to severe anxiety). The HAM-A has demonstrated strong psychometric properties, including test–retest reliability of 0.86, excellent inter-rater reliability of 0.98, and good convergent validity ( $r = 0.77$ ). Importantly, the scale’s reliability, validity, and clinical utility have been re-established in recent psychometric evaluations and reviews, including studies by Zimmerman et al. (2020) and Santana et al. (2021), as well as its continued use and endorsement in anxiety treatment outcome research and clinical guidelines reviewed by Baldwin et al. (2022). The scale has also been widely employed in the Indian context, supporting its applicability for assessing anxiety among Indian populations. For instance, Kumar and Chaudhury (2019) used the scale to assess anxiety severity in an Indian adult sample and demonstrated its clinical utility and relevance within the Indian setting.

### **The Beck Depression Inventory (BDI)**

The Beck Depression Inventory (BDI) developed by Beck and Steer (1993) is a 21-item self-report measure widely used to assess the severity of depressive symptoms across affective, cognitive, motivational, and somatic domains, including depressed mood, pessimism, guilt, self-dislike, suicidal ideation, sleep disturbance, fatigue, appetite changes, and loss of libido. Each item is rated on a 4-point scale reflecting increasing symptom severity. The BDI has consistently demonstrated strong psychometric properties, with reported internal consistency coefficients ranging from .73 to .92 (mean  $\alpha \approx .86$ ), including alpha values of .86 for psychiatric populations and .81 for non-psychiatric samples. Importantly BDI have been re-established. In a large-scale psychometric evaluation, Brouwer, Meijer, and Zevalkink (2021) examined the psychometric properties in large community samples and reported excellent internal consistency ( $\alpha > .90$ ), a stable factor structure, and strong construct validity, thereby reaffirming the robustness and relevance of the instrument in modern populations. In addition, the BDI has been widely used in the Indian cultural context prior to the present study, supporting its applicability across diverse Indian populations. For instance, Patadia et al. (2021) employed the BDI to assess depressive symptoms among higher secondary school students in India, while Kukreja, Ansari, and Mulla (2021) used the BDI to examine the prevalence and associated factors of depression among undergraduate medical students.

### **Psychosocial Well-Being – Youth Self-Report (YSR)**

Psychosocial well-being, operationalized in terms of psychosocial impairment, was assessed using the Youth Self-Report (YSR) developed by Thomas M. Achenbach and Leslie A. Rescorla (2001). The YSR is a 112-item self-report instrument designed to evaluate emotional and behavioral functioning among adolescents aged 11–18 years. In the present study, the YSR was employed to assess impairments in psychosocial functioning, reflected through emotional and behavioral problems rather than indicators of positive well-being. The YSR has demonstrated excellent psychometric properties across diverse populations. Previous research reports high internal consistency, with Cronbach’s alpha values typically ranging from .90 to

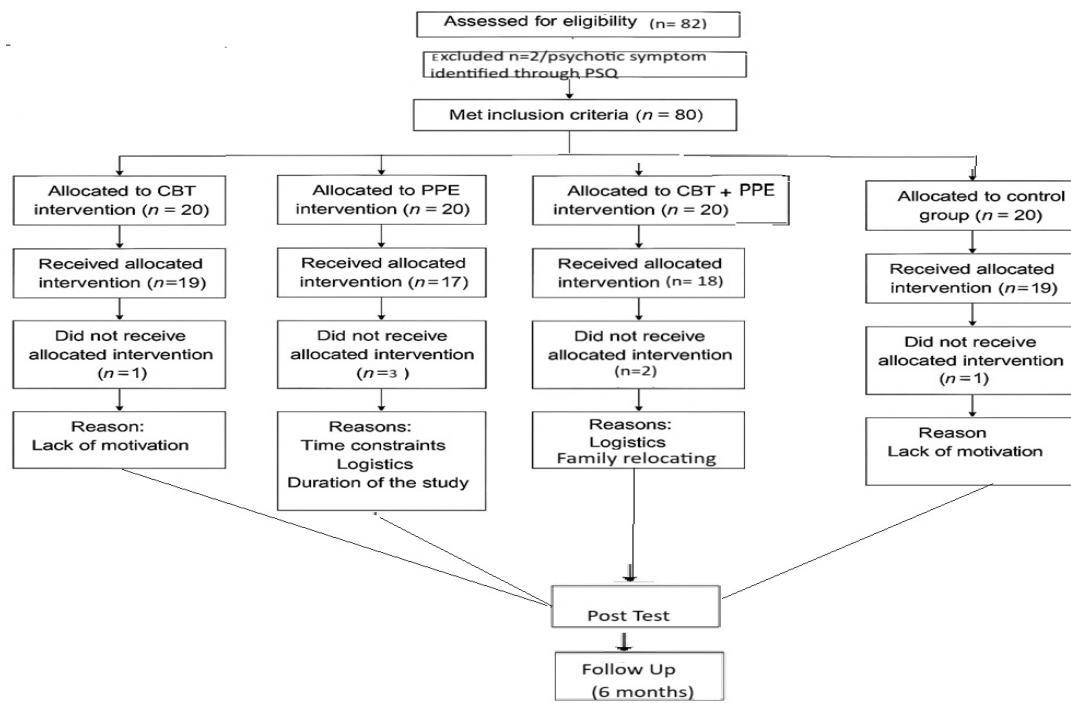
.97 for the Total Problems scale. The instrument has also shown good test-retest reliability, with coefficients ranging from .79 to .88, indicating stability of scores over time. Importantly, the psychometric properties of the YSR have been re-established in large-scale multicultural research. Rescorla et al. (2017) reported high internal consistency across multiple cultures, with Cronbach's alpha values ranging from approximately .90–.97 for the Total Problems scale, .83–.90 for Internalizing problems, and .86–.92 for Externalizing problems, thereby supporting the reliability and cross-cultural validity of the instrument. In the present study, confirmatory factor analysis (CFA) was conducted to re-establish the factorial validity of the YSR. The results indicated an acceptable model fit ( $\chi^2/df = 2.41$ , CFI = .92, TLI = .91, RMSEA = .06), confirming the adequacy of the Internalizing–Externalizing factor structure in the current sample. Furthermore, the YSR has been used in the Indian context, including a school-based study conducted among adolescents in Vijayawada, Andhra Pradesh (2019) with a sample of 200 students, supporting its cross-cultural applicability and suitability for Indian adolescent populations.

During the intervention phase:

- 1 participant in the CBT group did not receive the allocated intervention due to a lack of motivation.
- 3 participants in the PPE group dropped out due to time constraints, logistical difficulties, and duration of the study.
- 2 participants in the CBT + PPE group did not complete the intervention due to logistics and family relocation
- 1 participant in the control group was lost due to a lack of motivation.
- All remaining participants underwent post-intervention assessments and were followed up after 6 months to measure long-term effects.

**Figure 4**

## Consort Diagram



## Safety considerations

Participants were carefully screened for severe psychiatric conditions prior to enrolment, and individuals showing signs of psychosis or other serious mental health concerns were referred to a qualified psychiatrist; in this study, two participants were identified and referred appropriately. During CBT sessions and parent psychoeducation programs, participants were monitored for distress, anxiety, or any adverse emotional reactions, with facilitators trained to provide support as needed.. Participants had access to counseling support during and after the study, and the research team maintained regular contact to monitor well-being. Any emerging mental health concerns, such as severe anxiety, depression, or self-harm ideation, were promptly referred to qualified mental health professionals to ensure participant safety throughout the study.

## Follow-up

Participants received the 15-week intervention, consisting of CBT-IA sessions and parent psychoeducation programs. After completion of the intervention, participants were monitored for a 6-month follow-up period to assess the sustainability of improvements in Internet Gaming Disorder symptoms and psychosocial wellbeing. Regular check-ins were conducted during the follow-up to identify any emerging concerns or adverse effects. Participants showing distress, adverse emotional reactions, or new mental health concerns were provided counseling support and, if necessary, referred to qualified mental health professionals. This follow-up ensured that any delayed or ongoing issues were addressed promptly, maintaining participant safety after the intervention period.

## Data management and statistical analysis

All data collected during the study were handled with strict confidentiality. Participant responses from questionnaires and assessment tools were coded using unique identification numbers to ensure anonymity. Data were securely stored in password-protected computers, with access limited to the research team. Regular verification and monitoring were conducted to ensure accuracy and completeness of data entry.

## Quality assurance

The CBT-IA intervention was delivered using a standardized manualized protocol to ensure consistency across all participants, and the Parent Psychoeducation (PPE) sessions were similarly structured and standardized. The intervention was conducted by Shimil PV, an experienced counselor who has completed formal CBT-IA psychotherapy training, ensuring competent and ethical delivery. PPE sessions and overall intervention adherence were monitored by Dr. Narayanan, Senior Psychologist, to maintain fidelity to the protocol and to promptly address any deviations or participant issues.

Dr. P. Narayanan  
Dr. P. Narayanan, Psychologist, M.Phil  
Counselor Psychologist

Approval and Endorsement of Parent Psychoeducation Module for  
Parents of Adolescents with Internet Gaming Disorder

### To Whom It May Concern

I, Dr. P. Narayanan, a qualified psychologist with over 15 years of experience in counseling and psychotherapy, holding an M.Phil and Ph.D. in Psychology, and a certified counselor, approve the Parent Psycho-education Module developed for the research study titled "CBT-IA-IA201: CBT-IA Counseling with Parent Psycho-education on Improving Psychopathology With Self-Management Skills in Adolescents with Internet Gaming Disorders". This study is being conducted by Shimil PV, a licensed clinical psychologist in Bangalore.

The module is intended for administration to parents of adolescents diagnosed with Internet Gaming Disorder (IGD) and is grounded in the principles of Cognitive Behavioral Therapy and Family Systems Theory (Boswell, 1978). It is designed to enhance parental understanding of IGD, improve family communication patterns, increase parental self-efficacy, and encourage for relapse prevention.

After careful evaluation, I confirm that:

1. The content is accurate, relevant, and evidence-based, designed to meet professional standards and guidelines for psycho-education in mental health.
2. The strategies outlined are safe, ethical, and developmentally appropriate for the intended parent population.
3. The module promotes healthy parent-child relationship, effective communication, self-efficacy, and support for positive behavioral change in adolescents with IGD.

I hereby approve and endorse the use of this Parent Psycho-education Module in the above mentioned research study. The approved module content is appended to this letter as Annexure 1 for reference.

Sincerely,

Dr. P. Narayanan  
M.Phil (Psychology), Ph.D (Psychology)  
P.G. Diploma in Counseling and Guidance (PCBT)  
Counselor Psychologist

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### **Expected outcomes of the study**

The study is expected to provide empirical evidence on the effectiveness of CBT-IA combined with Parent Psychoeducation (PPE) in improving psychosocial wellbeing and reducing Internet Gaming Disorder (IGD) symptoms among adolescents. It is anticipated that adolescents receiving the combined intervention will demonstrate greater improvements in emotional regulation, social functioning, and overall psychological wellbeing compared to those receiving either intervention alone or no intervention.

### **Dissemination of results and publication policy**

The results of this study will be disseminated through multiple channels to reach both the scientific community and the broader public. Findings will be submitted for publication in peer-reviewed journals focusing on adolescent mental health, behavioral addictions, and psychotherapy research. Presentations will also be made at national and international conferences to share insights with researchers, clinicians, and educators. To ensure community impact, summary reports of the study findings will be shared with participating schools and parents, highlighting practical recommendations for managing Internet Gaming Disorder among adolescents. Where relevant, the results may also be communicated to policymakers and school administrators to inform evidence-based programs and mental health policies for adolescents.

### **Duration of the project**

The project was conducted over a period of approximately three years, starting in 2021 and completed in March 2024. The study followed the below timeline:

- 2021–2022: Study conceptualization, protocol development, ethics approval (granted on 17/06/2022), and preparation of study materials.
- July 2023 – October 2023 (15 weeks): Implementation of the intervention, including CBT-IA sessions for adolescents and Parent Psychoeducation (PPE) sessions.
- November 2023 – April 2024 (6-month follow-up): Post-intervention assessments and follow-up monitoring to evaluate the sustainability of intervention effects.
- March 2024: Completion of data collection, analysis, and preparation of study reports.

### **Problems anticipated**

Several challenges were anticipated in conducting this study on adolescents with Internet Gaming Disorder (IGD). First, participant recruitment and retention could have been difficult due to adolescents' reluctance to participate in interventions or parents' hesitancy to allow involvement. To address this, clear communication about study benefits, confidentiality, and voluntary participation was emphasized during recruitment, and regular follow-up was maintained to ensure retention. Second, variability in participant engagement during CBT-IA

sessions or parent psychoeducation programs was anticipated, which could affect the consistency of intervention delivery. To mitigate this, the intervention was manualized and standardized, and facilitators were trained to maintain engagement and adherence, with supervision provided by Dr. Narayanan.

### **Project management**

The project was managed by a small, well-defined research team with clear roles and responsibilities to ensure smooth execution of all study phases.

- Shimil PV (Principal Investigator / Researcher): Responsible for overall study design, implementation of the intervention (CBT-IA), coordination of parent psychoeducation (PPE) sessions, data collection, data entry, analysis, and preparation of reports and manuscripts. Shimil also ensured participant safety and ethical compliance throughout the study.
- Dr. Palak Kanwar (Supervisor): Provided oversight on the research methodology, ethical compliance, data interpretation, and overall supervision of the study. Assisted in reviewing study materials, monitoring progress, and ensuring adherence to academic and ethical standards.
- Dr. Narayanan (Senior Psychologist): Supervised intervention delivery and monitored fidelity to the standardized CBT-IA and PPE protocols. Provided expert guidance on clinical issues and addressed any adverse events or participant concerns arising during the intervention.

### **Ethics**

#### **Ethical Considerations**

The study was conducted in strict adherence to established ethical guidelines for human participant research. Data collection commenced only after obtaining approval from the Institutional Review Board (CU.CFR.PhD.CWCL.REG.No.2090160.DEC-2020), and a copy of the IRB approval letter is provided in the appendix. Written informed consent was obtained from all participants, along with assent and parental consent for adolescent participants. Participants were clearly informed that their participation was voluntary and that they were free to withdraw from the study at any stage without providing any reason or facing any penalty. However, no participant withdrew after initially agreeing to take part in the study.

Before data entry, all personal identifiers were removed, and the data was anonymized to ensure confidentiality. The master dataset was stored in a password-protected system accessible only to the principal researcher and the research supervisor. During screening, two participants were identified with a history of psychosis and were immediately referred for appropriate psychiatric evaluation and follow-up treatment; they were not included in the intervention. For ethical balance, the control group was provided Cognitive Behavioral Therapy (CBT) after the completion of the intervention phase, ensuring that no participant was deprived of potential therapeutic benefit.

## Informed consent forms

### Informed Consent - Parent

I am aware that Mr./Ms. \_\_\_\_\_ is seeking my consent for my child's participation in a research study for his Ph.D. thesis. The title of the study is "Effect of CBT-IA combined with parent psychoeducation on improving psychosocial wellbeing among adolescents with internet gaming disorder". The purpose of the study is to examine the effectiveness of CBT -IA and parent psychoeducation on decreasing the score of IGD and improving psychosocial wellbeing among adolescents with internet gaming disorder.

My son/daughter will be required to answer a few questions in written form pertaining to his/her views and if required he /she will attend 15 group therapy sessions.

If required I will be attending 2 sessions. Each session's duration will be 2 hours.

My son/daughter and I have been explained about the details in a language that I am familiar with and he has clarified any doubts that I had regarding the study topic.

My son/daughter and I understand that participation in this study is entirely voluntary, and We have not been pressurized by researcher in any way to be part of this study.

My son/daughter and I also have been explained by researcher that views will be kept confidential, and my identity will not be disclosed by him in any manner at any phase of this study without my explicit consent to do so. The details that I give researcher as part of his data collection will not be used for any purpose other than academic.

Having satisfied myself with these conditions I, \_\_\_\_\_ (name) hereby declare that I consent to be part of Mr. \_\_\_\_\_ study titled Effect of CBT-IA combined with parent psychoeducation on improving psychosocial wellbeing among adolescents with internet gaming disorder"

Name (in capital letters)  
Place:  
Date:

Signature

Researcher's contact details:  
Mobile no.  
Email:

### Informed Consent- Adolescent

I am aware that Mr./Ms. \_\_\_\_\_ is seeking my consent to participate in a research study for his Ph.D. thesis. The title of the study is "Effect of CBT-IA combined with parent psychoeducation on improving psychosocial wellbeing among adolescents with internet gaming disorder". The purpose of the study is to examine the effectiveness of CBT -IA and parent psychoeducation on decreasing the score of IGD and improving psychosocial wellbeing among adolescents with internet gaming disorder.

I will be required to answer a few questions in written form pertaining to my views and if required I will attend 15 group therapy sessions.

I have been explained about the details in a language that I am familiar with and he has clarified any doubts that I had regarding the study topic.

I understand that participation in this study is entirely voluntary, and I have not been pressurized by researcher in any way to be part of this study.

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Name (in capital letters)  
Place:  
Date:

Signature

Researcher's contact details:  
Mobile no.  
Email:

# Research protocol: part 2

## Budget

This study did not receive any external funding and was self-funded by the researcher. No specific budget was requested from any funding agency. All expenses related to data collection, intervention delivery, assessment materials, and data analysis were managed using existing institutional resources and the researcher's personal resources.

## Other support for the project

Not applicable

## Collaboration with other scientists or research institutions

Not applicable

## Links to other projects

Not applicable

## Curriculum Vitae of investigators

	<p><b>Shimil PV</b>    is a dedicated counsellor and assistant professor specializing in adolescent counselling. He is actively engaged in research and intervention strategies focused on addressing internet gaming disorder among adolescents in Karnataka, India. Shimil is Ph.D. scholar in Christ University and working in St Aloysius university where he contributes to the academic and counselling realms, aiming to enhance the mental well-being of adolescents. His work recognized in reputable academic databases such as Scopus. He can be contacted at email: <a href="mailto:shimil.pv@res.christuniversity.in">shimil.pv@res.christuniversity.in</a>.</p>
	<p><b>Dr. Palak Kanwar</b>    is an esteemed Assistant Professor at Christ University in Bangalore, India, specializing in the study of adolescent behavior. Her research interests primarily revolve around recognizing protective and risk factors associated with problem behaviors in adolescents. Dr. Kanwar earned her doctorate from Guru Nanak Dev University in India, showcasing her commitment to academic excellence. Her contributions to the field include several published papers, with her work recognized in reputable academic databases such as Scopus. She can be contacted at email: <a href="mailto:palak.kanwar@christuniversity.in">palak.kanwar@christuniversity.in</a>.</p>

## Other research activities of the investigators

The Principal investigator should list all current research projects that he/she is involved in, the source of funding of those projects, the duration of those projects and the percentage of time spent on each.

### **Financing and insurance**

Financing and insurance if not addressed in a separate agreement, and where relevant should be described.