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Development and Rasch Validation of the Indonesia College Pornography Consumption Scale (CPCS)

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Abstract

Background: Online pornography raises concerns about problematic use among university students. Existing measures lack validation for Indonesian populations. **Objective:** To develop and validate the College Pornography Consumption Scale (CPCS) for Indonesian students. **Method**: Guided by Griffiths'(2005) biopsychosocial addiction model, an item pool covering six dimensions was generated and reviewed by expert judges. Psychometric evaluation used Rasch analysis on data from 383 Indonesian undergraduates recruited via purposive sampling. **Results**: Rasch analysis supported unidimensionality (variance explained = 66.20%). Reliability indices were high (person separation reliability = .95; Cronbach's α = .98). Most items demonstrated acceptable model fit; however, eight misfitting items require refinement. The Wright map indicated effective targeting across levels of addictive behaviors, with greater sensitivity at higher levels of problematic use. **Conclusion**: Initial findings provide support for the validity of the CPCS, though the eight misfitting items indicates that the scale's performance is still being optimized. CPCS offers a useful starting point for clinical screening in Indonesia population, provided that future iterations re-evaluate the problematic items to improve overall model fit.

Keywords: Indonesian students; problematic pornography use; psychometric validation; rasch analysis; scale development

Abstrak

Latar Belakang: Akses ke pornografi daring semakin mudah, menimbulkan kekhawatiran tentang penggunaan problematik di kalangan mahasiswa. Instrumen yang ada belum tervalidasi khusus untuk populasi Indonesia. **Tujuan:** Mengembangkan dan memvalidasi College Pornography Consumption Scale (CPCS) bagi mahasiswa Indonesia. **Metode**: Berpedoman pada model adiksi biopsikososial Griffiths (2005), disusun himpunan butir yang mencakup enam dimensi (saliensi, toleransi, modifikasi suasana hati, gejala putus, konflik, kekambuhan) dan ditinjau oleh pakar. Evaluasi psikometrik menggunakan analisis Rasch pada data 383 mahasiswa sarjana Indonesia yang direkrut melalui sampling purposif. **Hasil**: Analisis Rasch mendukung unidimensionalitas (66,20%). Indeks reliabilitas tergolong tinggi (*person separation reliability* = .95; α = .98). Sebagian besar item menunjukkan kesesuaian model yang dapat diterima; namun, delapan item yang misfit memerlukan penyempurnaan. Wright Map menunjukkan penargetan yang efektif di berbagai tingkat perilaku adiktif, dengan sensitivitas yang lebih besar pada tingkat penggunaan bermasalah yang lebih tinggi. **Kesimpulan**: Temuan awal mendukung validitas CPCS, meskipun beberapa item masih perlu disempurnakan. Skala ini berpotensi menjadi instrumen awal untuk menilai penggunaan pornografi bermasalah pada mahasiswa Indonesia, dengan kebutuhan pengembangan lanjutan guna meningkatkan kesesuaian model.

Kata Kunci: analisis rasch; konsumsi pornografi problematik; mahasiswa indonesia; pengembangan skala; validasi psikometrik

Introduction

The The rapid growth of online pornography has raised increasing concern regarding problematic consumption among young adults, particularly university students. Empirical studies indicate substantial exposure within this age group. For example, 12.5% of undergraduates reported high levels of pornography exposure (Kumar et al., 2021), while a Swedish study found exposure rates of 68.7% among males and 27% among females aged 16–24, with 17.2% reporting daily use (Malki et al., 2021). Longitudinal data from Poland further demonstrate a marked increase in online pornography consumption over time (Lewczuk et al., 2021), and prevalence estimates across broader age groups exceed 85% (Ballester-Arnal et al., 2022). Motivations for use vary, including sexual enhancement, curiosity, and compensatory coping for relational or emotional difficulties (Burtăverde et al., 2021).

Beyond prevalence, research suggests that frequent pornography consumption may be associated with cognitive and affective changes, including intrusive thoughts and altered sexual arousal patterns (Setyawati et al., 2020). These findings highlight the importance of accurately assessing problematic patterns of use, particularly within developmental periods characterized by identity exploration and evolving intimacy, such as emerging adulthood.

Several instruments have been developed to measure problematic pornography consumption, including the Problematic Pornography Consumption Scale (Bőthe et al., 2018), Problematic Pornography Use Scale (Kor et al., 2014), Short Internet Addiction Test Adapted to Online Sexual Activities (Wéry et al., 2016), Cyber Pornography Addiction Test (Cacioppo et al., 2018), and Brief Pornography Screen (Kraus et al., 2020). While these measures contribute valuable insights, they present several limitations in the context of Indonesian university students. First, most were developed and validated in Western populations, raising concerns about cultural and linguistic equivalence. Second, many instruments target general adult samples rather than the specific psychosocial context of emerging adulthood, which may influence motivations, patterns of use, and perceived consequences. Third, variability in conceptual foundations across scales complicates construct comparability and highlights ongoing debate regarding the dimensional structure of problematic pornography use.

A systematic review of 22 instruments confirmed this heterogeneity, identifying common dimensions such as impaired control, salience, mood modification, and conflict, but also noting inconsistencies in theoretical grounding and the need for further construct validation (Fernandez & Griffiths, 2021). These limitations underscore the need for a contextually sensitive instrument that is theoretically coherent and psychometrically evaluated within Indonesian student populations.

To address this gap, the present study develops the College Pornographic Consumption Scale (CPCS) based on Griffiths' (2005) biopsychosocial addiction framework. This model conceptualizes addictive behaviors through six components—salience, tolerance, mood modification, withdrawal, conflict, and relapse—providing a structured and behaviorally measurable basis for scale development. By adapting this framework to the university student context, the CPCS aims to generate culturally relevant measurement evidence and contribute to ongoing conceptual clarification in the assessment of problematic pornography consumption.

Method

Sample or Population

This study targeted Indonesian undergraduate students, a population estimated at 8,837,883 based on national higher education statistics (Kemdikbud, 2021). Participants were recruited using purposive sampling to ensure that respondents possessed characteristics relevant to the construct under investigation. A total of 383 students participated in the study.

The inclusion criteria were: (1) active enrollment as an undergraduate student at a public or private university in Indonesia, (2) Indonesian citizenship, (3) age between 17 and 22 years, and (4) self-reported experience accessing online pornographic content. Exclusion criteria included incomplete questionnaire responses and failure to meet the demographic requirements.

Data Measurement

The primary instrument developed in this study was the College Pornographic Consumption Scale (CPCS), designed to measure problematic pornography consumption among university students. The process of scale development followed a systematic, multi-stage procedure to ensure its theoretical grounding and content validity.

The development process began with (1) a thorough observation of the phenomenon of rising pornography consumption among students. This was followed by (2) an extensive review of existing measurement tools for problematic pornography use. From this review, (3) the most utilized and theoretically sound framework was identified as Griffiths' (2005) biopsychosocial model of addiction. This model, with its six core components—salience, tolerance, mood modification, withdrawal, conflict, and relapse—was selected as the theoretical foundation for the CPCS due to its comprehensive approach to addictive behaviors.

Subsequently, (4) an initial pool of items was constructed to reflect behavioral indicators of these six dimensions. The construct was explicitly defined as intentional engagement with erotic text, images, or videos to stimulate sexual arousal. To establish content validity, (5) these items underwent expert judgment by two clinical psychologists specializing in addiction and pornography-related issues and one psychometrician. (6) Feedback from these experts was incorporated, resulting in revisions to wording, clarity, and cultural relevance.

The initial CPCS consisted of 48 items derived from the biopsychosocial addiction framework. The revised instrument was formatted using a 4-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree) to prevent neutral responses and encourage definitive responses from participants.

Finally, (7) the scale was administered in the present study, and (8) Rasch analysis was conducted to evaluate its psychometric performance. Following Rasch model evaluation, 40 items were retained, while eight misfitting items were flagged for revision, providing empirical guidance for further refinement of the scale.

Data collection was conducted entirely online. A digital questionnaire was created using Google Forms, which contained the draft CPCS instrument, a participant information sheet, and a consent form. The survey link was distributed through various social media and communication platforms, including WhatsApp, Instagram, Facebook, email, and Twitter, to reach a broad national sample of university students. Prospective participants were presented with study information and provided digital consent before proceeding. The estimated completion time was 15–20 minutes, and data collection continued until the target sample size was achieved.

Data Analysis

About The psychometric properties of the College Pornographic Consumption Scale (CPCS) were analyzed using Item Response Theory (IRT), specifically the Rasch model, implemented with the Winsteps software. The polytomous Rasch model (Rating Scale Model) was employed to analyze the 4 point Likert scale data. The analysis focused on several key aspects: (1) Item Fit, assessed using Mean Square (MNSQ) outfit and infit statistics (acceptable range: 0.5 - 1.5) to determine how well each item conforms to the model's expectations; (2) Item Difficulty (measure), calibrated in logits, to evaluate the hierarchy of items along the latent trait of problematic consumption; (3) Person-Item Map (Wright Map), to visualize the alignment between the participants' ability levels and the item difficulty parameters; (4) Reliability, examined through person and item separation reliability indices; and (5) Rating Scale Functioning, to confirm that the four response categories were utilized as intended by participants. This IRT approach provides a rigorous framework for evaluating the precision and quality of each item, informing potential item refinement, and establishing the construct validity of the scale.

Result

A total of 383 participants (see Table 1) were included in the final analysis. The sample was predominantly female (69.97%, n=268), with 23.50% male (n=90) and 6.53% (n=25) who chose not to disclose their gender. The age distribution was concentrated within the target range of emerging adulthood: 18 years (8.4%), 19 (13.3%), 20 (22.7%), 21 (29.2%), and 22 (26.1%). Geographically, the majority of respondents were domiciled in DKI Jakarta (72.85%, n=279), which may indicate a limitation in the national representativeness of the sample. Academically, participants came from a diverse range of faculties, with the largest groups from Psychology (22.98%, n=88), Economics and Business (11.75%, n=45), and Communication Studies (7.31%, n=28). A wide variety of other faculties were also represented (50.91%, n=195). The distribution across academic semesters was broad, with the highest concentration in the 6th semester (31.85%, n=122). The detailed demographic profile is presented in Table 1, confirming that the sample adequately represents the intended population of Indonesian undergraduate students.

Tabel 1. Participant Demographics

Data	Frequency	Percentage
Gender		

Laki-laki	90	23.5%
Perempuan	268	69.97%
Tidak menjawab	25	6.53%
Age		
17 tahun	1	0.26%
18 tahun	32	8.36%
19 tahun	51	13.32%
20 tahun	87	22.72%
21 tahun	112	29.24%
22 tahun	100	26.11%
Faculty		
Psikologi	88	22.98%
Ilmu Komunikasi	28	7.31%
Ekonomi dan Bisnis	45	11.75%
Hukum	10	2.61%
Farmasi	4	1.04%
Teknik	13	3.39%
Lainnya	195	50.91%
Semester		
1	5	1.31%
2	38	9.92%
3	44	11.49%
4	105	27.42%
5	32	8.36%
6	122	31.85%
7	3	0.78%
8	31	8.09%
10	3	0.78%
Domicile		
DKI Jakarta	279	72.85%
Jawa Barat	41	10.70%
Jawa Timur	19	4.96%
Jawa Tengah	13	3.39%
Banten	10	2.61%
D.I. Yogyakarta	6	1.57%
Sumatera Utara	4	1.04%
Bali	3	0.78%
Riau	2	0.52%
Aceh	2	0.52%
Sumatera Barat	2	0.52%
Jambi	1	0.26%
Kalimantan Timur	1	0.26%
Sulawesi Selatan	1	0.26%

Person and Item Reliability and Separation

The summary statistics for persons and items are presented below (see table 2 and 3). The person separation reliability was .95 (real) and .97 (model), with a separation index of 4.31. This indicates that the instrument was highly reliable in differentiating between persons of varying ability levels, capable of distinguishing more than four distinct strata of person ability. Similarly, the item separation reliability was .99, with a separation index of 10.69, demonstrating excellent reliability in establishing a well-defined, hierarchical item difficulty scale. The Cronbach's alpha (KR-20) for the person raw score reliability was .98, further confirming the high internal consistency of the instrument.

Table 2. Summary statistics for persons

Statistic	Total Score	Measure	Model Error	Infit MNSQ	Infit ZSTD	Outfit MNSQ	Outfit ZSTD
Mean	106.5	−0.59	0.24	1.16	0.00	1.20	0.30
SD	41.6	1.44	0.09	0.57	2.00	0.63	1.80
Max	180.0	2.70	0.71	3.99	4.30	6.54	5.90
Min	50.0	−4.11	0.15	0.17	−7.20	0.25	−5.90

Table 3. Reliability and Separation Indices

Index	Value
Real RMSE	0.33
True SD	1.41
Person Separation	4.31
Person Reliability	0.95
Model RMSE	0.25
Person Separation (Model)	5.60
Person Reliability (Model)	0.97
Person Raw Score–Measure Correlation	0.97
Cronbach's α	0.98

Unidimensionality

The assumption of unidimensionality was examined using a Principal Component Analysis (PCA) of standardized residuals (see Table 4). The Rasch dimension explained 66.2% of the total variance, indicating a strong primary measurement dimension. The variance explained by items accounted for 33.7% of the total variance.

The unexplained variance in the first contrast had an eigenvalue of 8.7 (6.1% of total variance). Although this contrast represented 18.1% of the unexplained variance, its magnitude did not indicate a secondary dimension of substantive strength based on commonly accepted Rasch criteria. Furthermore, subsequent contrasts (2nd–5th) displayed progressively smaller eigenvalues, suggesting the absence of additional meaningful latent dimensions. Taken together, these findings support the essential unidimensionality of the CPCS.

Table 4. Summary of standardized residual variance

Variance Component	Eigenvalue	% of Variance	Modeled %
Total raw variance in observations	141.9	100.0	100.0
Raw variance explained by measures	93.9	66.2	65.4
Raw variance explained by persons	46.0	32.4	32.0
Raw variance explained by items	47.9	33.7	33.3
Raw unexplained variance (total)	48.0	33.8	34.6
Unexplained variance in 1st contrast	8.7	6.1	18.1
Unexplained variance in 2nd contrast	6.3	4.5	13.2
Unexplained variance in 3rd contrast	3.1	2.2	6.4
Unexplained variance in 4th contrast	1.9	1.3	3.9
Unexplained variance in 5th contrast	1.7	1.2	3.4

Local Independence

Local independence was evaluated by examining standardized residual correlations between items (see Table 5). The highest residual correlation was observed between Item 44 and Item 47 (r = .68), exceeding commonly recommended thresholds for local independence. This elevated correlation suggests potential local dependence, possibly reflecting shared content, similar wording, or overlapping behavioral indicators between the two items.

Despite this finding, most item pairs demonstrated low residual correlations, indicating that local dependence was not pervasive across the scale. Nevertheless, the presence of this strongly correlated pair

warrants caution, as local dependence may inflate reliability estimates and distort item parameter calibration. Future revisions of the CPCS should therefore consider reviewing the content of these items to reduce redundancy and strengthen adherence to the local independence assumption.

Table 5. Local Independence Result

Correlation	Entry Number	Item	Entry Number	Item
.68	44	44	47	47
.60	36	36	42	42
.56	42	42	48	48
.55	11	11	45	45
.52	8	8	28	28
.52	34	34	38	38
.51	3	3	15	15
.50	15	15	16	16
.50	40	40	42	42
.49	31	31	38	38

Item Calibration and Fit

The item difficulty measures, estimated in logits, ranged from -1.99 (easiest) to 2.04 (most difficult), with a mean of 0.00 and a standard deviation of 0.93, indicating a good spread of item difficulties along the measurement continuum. The point measure correlations were predominantly high (mean .85), indicating that most items were positively correlated with the total measure and contributed to defining the underlying construct.

Infit and Outfit mean-square statistics (MNSQ) were used to evaluate item fit (see Table 6). The ideal range for these statistics is typically between 0.5 and 1.5. The mean Infit MNSQ was 0.98 (ZSTD = -3.6) and the mean Outfit MNSQ was 1.11 (ZSTD = -3.3), indicating that the overall item responses fit the Rasch model expectations well. However, eight misfitting items (9, 10, 17, 21, 36, 40, 42, 48) showed significant misfit, with Infit and/or Outfit MNSQ values exceeding 2.0. These items may be measuring a different dimension or may have response patterns that are erratic or overly predictable, and they warrant further inspection.

Table 6. Statistic result and step parameter

Item	Measure	Infit	Outfit	PTMEA	Step 1	Step 2	Step 3	Step 4
Item-40	1.76	2.20	2.88	0.00	-	-1.36	0.24	1.12
Item-26	1.39	0.61	1.07	0.61	-	-2.71	3.34	-0.63*
Item-27	1.33	0.68	1.04	0.62	-	-2.68	1.59	1.09*
Item-17	1.18	1.07	2.51	0.45	-	-2.64	1.22	1.42
Item-36	1.12	3.75	5.37	-0.09	-	-0.83	0.40	0.42
Item-22	0.78	0.33	0.43	0.84	-	-1.69	-1.54	3.23
Item-15	0.76	0.35	0.49	0.82	-	-2.26	-1.71	3.97
Item-16	0.64	0.47	0.54	0.81	-	-2.30	-1.82	4.12
Item-41	0.63	0.43	0.50	0.82	-	-1.81	-1.16	2.97
Item-18	0.57	0.47	0.57	0.82	-	-2.07	-1.10	3.17
Item-9	0.48	3.44	4.03	0.22	-	-0.52	-0.14	0.66
Item-23	0.32	0.62	0.53	0.83	-	-0.20	2.60	-2.49*

Item	Measure	Infit	Outfit	PTMEA	Step 1	Step 2	Step 3	Step 4
Item-35	0.22	0.53	0.47	0.86	-	-0.16	1.98	-1.82*
Item-43	0.22	0.54	0.47	0.85	-	-0.47	2.69	-2.22*
Item-19	0.14	0.50	0.47	0.86	-	-0.58	2.32	-1.74*
Item-39	0.07	0.46	0.42	0.87	-	-0.43	1.38	-0.95*
Item-42	0.07	6.13	6.74	-0.20	-	-0.23	-0.35	0.58
Item-2	0.05	0.49	0.49	0.86	-	-0.67	1.90	-1.23*
Item-3	0.05	0.45	0.41	0.87	-	-0.64	1.72	-1.09
Item-37	0.04	0.47	0.41	0.87	-	-0.66	1.89	-1.24*
Item-30	0.03	0.48	0.44	0.86	-	-0.66	1.82	-1.16*
Item-5	-0.03	0.48	0.46	0.86	-	-0.77	1.84	-1.07*
Item-32	-0.03	0.59	0.49	0.86	-	-0.31	1.28	-0.96*
Item-33	-0.07	0.51	0.48	0.87	-	-0.41	0.89	-0.48*
Item-24	-0.09	0.45	0.40	0.88	-	-0.58	1.10	-0.52*
Item-13	-0.09	0.42	0.39	0.88	-	-1.04	2.19	-1.15*
Item-28	-0.13	0.47	0.42	0.88	-	-0.54	0.97	-0.43*
Item-29	-0.17	0.49	0.42	0.88	-	-0.40	0.52	-0.13*
Item-6	-0.18	0.49	0.45	0.87	-	-0.86	1.32	-0.46*
Item-8	-0.20	0.51	0.48	0.87	-	-0.46	0.80	-0.34*
Item-46	-0.21	0.76	0.71	0.82	-	-0.68	1.50	-0.81-*
Item-45	-0.23	0.46	0.39	0.88	-	-0.54	0.59	-0.05*
Item-1	-0.23	0.50	0.56	0.86	-	-0.79	1.21	-0,43*
Item-4	-0.26	0.54	0.46	0.86	-	-0.53	0.81	-0.28*
Item-11	-0.29	0.72	0.56	0.84	-	-0.62	1.85	-1.23*
Item-12	-0.40	0.54	0.46	0.86	-	-0.38	0.21	0.18*
Item-25	-0.40	0.65	0.57	0.85	-	-0.31	0.30	0.01*
Item-31	-0.45	0.68	0.53	0.84	-	-0.73	1.31	-0.58*
Item-34	-0.45	0.50	0.45	0.87	-	-0.65	0.50	0.14*
Item-10	-0.46	1.29	1.13	0.73	-	-0.02	0.06	-0.04*
Item-7	-0.50	0.48	0.46	0.87	-	-0.62	0.33	0.29*
Item-38	-0.52	0.62	0.51	0.85	-	-0.59	0.59	0.00*

Item	Measure	Infit	Outfit	PTMEA	Step 1	Step 2	Step 3	Step 4
Item-20	-0.58	0.71	0.55	0.83	-	-0.57	1.18	-0.61*
Item-44	-0.84	1.06	0.92	0.74	-	-0.48	0.94	-0.46*
Item-47	-0.88	0.97	0.87	0.75	-	-0.57	0.73	-0.16*
Item-21	-1.03	1.99	1.67	0.57	-	1.27	-1.55	0.28
Item-48	-1.24	4.13	9.90	-0.30	-	-0.46	0.12	0.34
Item-14	-1.89	1.22	1.26	0.61	-	0.06	-0.94	0.88

Rating Scale Functioning

The functionality of the 4 point rating scale was examined. For the vast majority of items, the average ability measures increased monotonically with each successive category score (e.g., from 1 to 4). This indicates that respondents with higher overall ability consistently selected higher category scores, confirming that the rating scale was functioning as intended across most items.

However, category disordering (where the average ability for a higher score is lower than that of a preceding score) was observed in a small number of items (e.g., Items 36, 42, 48). This suggests that for these specific items, the respondents did not consistently use the rating scale categories in a hierarchical manner. The Outfit MNSQ for individual categories were generally within acceptable limits for most items, though some misfitting items also showed high values at the category level.

Wright Map

The Wright Map (Figure 1) shows person abilities (left) and item difficulties (right) on the same logit scale. Person abilities ranged from –4 to +3 logits, mostly clustering around the mean (0 logits), indicating that most respondents had average levels of the latent trait. Each "#" represents six participants; each "." represents one to five participants. Item difficulties spanned –2 to +2 logits. The hardest items (e.g., Items 15–17, 22, 26, 27, 40) were less frequently endorsed, while the easiest items (e.g., Items 14, 20, 21, 44, 47, 48) were more frequently endorsed. Most items clustered around 0 logits (e.g., Items 19, 23, 35, 42, 43), suggesting some redundancy.

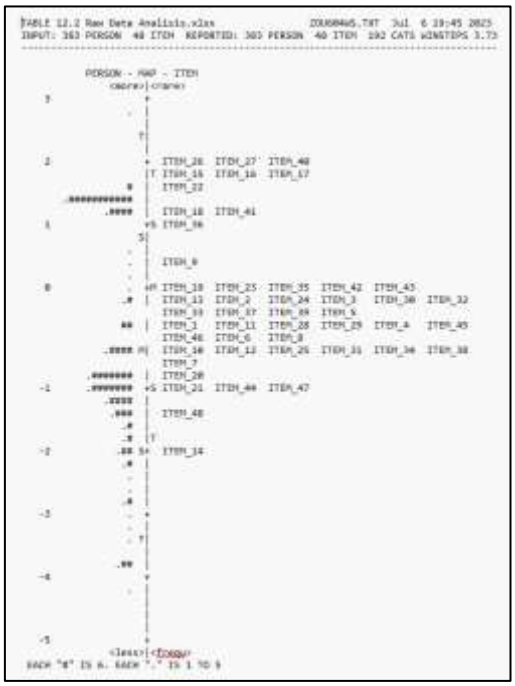

Figure 1. Wright Map Result

Overall, targeting was adequate, with the person mean aligning closely with the item mean (M = 0). Gaps were observed above +2 and below –2 logits, indicating lower measurement precision at the extremes.

Future test development could add items in these ranges to improve coverage. The Wright Map supports that the scale is well-targeted for most respondents, with minor opportunities for refinement at extreme ability levels.

Discussion

The primary aim of this study was to develop and validate the College Pornographic Consumption Scale (CPCS), an instrument designed to assess problematic pornography consumption among university students. Using a Rasch Partial Credit Model with data from 383 Indonesian undergraduates, the findings provide strong preliminary evidence for the scale's reliability and validity while also identifying areas requiring refinement. The CPCS demonstrated solid structural validity. The unidimensionality test indicated that the scale measures a dominant construct, with 66.2% of variance explained by the measure, exceeding the recommended 50% threshold. This supports the assumption that the six components of Griffiths' (2005) model—mood modification, salience, tolerance, withdrawal, relapse, and conflict—function as indicators of a coherent latent trait of problematic consumption in this population.

Nevertheless, local independence analysis revealed residual correlations above 0.50 for several item pairs (e.g., items 44 & 47), suggesting shared variance beyond the primary construct and potential redundancy. Additionally, infit and outfit statistics identified eight misfitting items (9, 10, 17, 21, 36, 40, 42, 48). Consistent with scale development literature (Boone, 2016; Reise, 1990), item misfit may reflect imperfect alignment with the intended construct or wording issues. For example, items 9 and 42 appear to reflect feelings of discomfort or regret following pornography use. While such responses may relate to problematic consumption, prior research indicates they can also reflect broader experiences such as moral tension or general distress. Therefore, these items should be interpreted cautiously and considered for revision to improve construct specificity.

Despite these concerns, the scale exhibited excellent reliability. Person separation reliability (.95) suggests strong discrimination across trait levels, while item separation reliability (.99) indicates stable item hierarchy. The Cronbach's alpha of .98 further supports high internal consistency within the initial item pool.

The Wright Map revealed a targeting issue, with item difficulty generally exceeding participant ability. The most difficult items to endorse (Items 26, 27, and 40) represent more severe behavioral indicators. This pattern suggests that the CPCS may be particularly sensitive to higher levels of problematic use but less responsive to milder patterns common in general student populations. Such mistargeting is frequently observed in early validation studies of clinically derived instruments. Consequently, adding items representing lower severity behaviors is recommended to improve measurement precision across the full continuum (Bond & Fox, 2015).

Several limitations should be acknowledged. First, the CPCS is grounded primarily in Griffiths' addiction framework. Although theoretically robust, alternative perspectives highlight that problematic pornography use may also involve coping processes or broader self-regulation difficulties. The present findings do not directly test these competing explanations; thus, integrating constructs from models such as the I-PACE framework (Brand et al., 2016) may enhance conceptual coverage in future work.Second, participants reported that some items were overly explicit. Research on sensitive topics suggests that direct wording can increase social desirability bias or discomfort, potentially affecting response accuracy. Cultural and linguistic refinement of item wording is therefore recommended, particularly within Southeast Asian contexts where norms around sexual discourse may influence disclosure. Finally, although the sample size was adequate, it was geographically concentrated in DKI Jakarta and predominantly female. Future research should include more diverse and balanced samples to strengthen generalizability across Indonesian university students.

Conclusion

This study developed and provided initial validation evidence for the College Pornographic Consumption Scale (CPCS), an instrument designed to assess problematic pornography consumption among university students. Grounded in Griffiths' (2005) biopsychosocial model of addiction, the scale was constructed through a systematic process involving literature review, item generation across six addiction dimensions, and expert evaluation.

Rasch model findings suggest that the CPCS demonstrates encouraging psychometric performance. The scale met unidimensionality expectations, supporting its measurement of a dominant construct of problematic use. It also showed high person and item separation reliability, indicating adequate differentiation across levels of the trait and stable item hierarchy within this sample.

At the same time, several findings highlight the preliminary nature of the instrument. Misfitting items and local dependencies indicate that certain items may require refinement to better align with the intended

construct. Moreover, the Wright Map suggested suboptimal targeting, with items primarily capturing higher levels of problematic consumption. This pattern points to the need for additional items representing lower severity behaviors to improve measurement precision across the continuum of student experiences.

Overall, the CPCS can be considered a promising research instrument that contributes preliminary measurement evidence within this emerging area of study. However, the scale remains under development, and its use should be interpreted within this context. Future studies should focus on revising misfitting items, improving scale targeting, and examining additional forms of validity—including cross-sample validation and criterion-related evidence—to further establish its robustness and practical applicability.

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