

Adaptation of the Pornography Consumption Inventory Using the Rasch Model: Implications for Mental Health, Infidelity Intention, And Religiosity

Winda Maharani¹, Devie Yundianto^{2*}, Ulfi Diva Zahrona³, Muhammad Khatami⁴, Wini Indriani⁵

1,2,3,4,5 Department of Psychology, Faculty of Social Science, Universitas Nahdlatul Ulama Indonesia, Indonesia

*devieyundianto@unusia.ac.id

ABSTRACT

The proliferation of personal devices and ubiquitous internet access has rendered pornography commonplace in daily life. This study presents an adaptation of an expanded Pornography Consumption Inventory (PCI), designed to measure pornography consumption and identify its impact on mental health and other correlated factors. The study highlights how consumption can affect the quality of interpersonal relationships (e.g., leading to infidelity intention) and conflict with personal aspects (e.g., religiosity). These interrelations underscore the need for a valid screening instrument to detect compulsive pornography use. The data analysis focused on the instrument's validity and reliability. For construct validity, the research applied two comprehensive, modern statistical techniques: Confirmatory Factor Analysis (CFA) and Rasch Modeling. Furthermore, reliability was assessed using Cronbach's alpha, and convergent validity was established against three external variables: religiosity, infidelity intention, and individual subjective well-being. The results of this adaptation are expected to provide valuable insights for mental health practitioners, researchers, and clinical psychologists. This instrument can aid in developing more effective interventions for individuals facing pornography-related mental health challenges. This study also recommends further research to better understand the complex relationship between pornography consumption and mental well-being, in order to refine prevention and recovery efforts.

Keywords : confirmatory factor analysis; convergent validity; instrument adaptation, pornography use; Rasch modeling.

Introduction

The use of pornography in society is one of the major problems that occurs in the world, especially in Indonesia. Based on the National Survey of Life Experiences of Children and Adolescents conducted by the Ministry of Women's Empowerment and Child Protection in 2018, 66.6% of boys and 62.3% of girls in Indonesia watched sexual activities (pornography) through online media. In the same year, since 10 August 2018, the Indonesian Government, through the Ministry of Communication and Informatics, has blocked all internet content containing pornographic elements via the Safe Mode feature in search engines (Ministry of Communication and Informatics of the Republic of Indonesia, 2018). This is a significant step taken by the Government to reduce and even overcome the problem of pornography use, which is increasingly rampant in Indonesia Ministry of Women's Empowerment and Child

Protection of the Republic of Indonesia, 2018). However, these measures still appear ineffective. This is evidenced by research conducted by the Indonesian Internet Service Providers Association, entitled the 2023 Internet Penetration and Behavior Survey (Indonesian Internet Service Providers Association, 2023). A total of 33.81% of respondents admitted to knowing about pornographic websites accessible online, and 9.91% of respondents admitted to accessing these sites.

Numerous studies worldwide have attempted to identify factors influencing pornography consumption. This is primarily used to develop appropriate intervention methods to address this issue. Several risk factors highlighted in this study are considered highly significant to the current social situation in Indonesia. However, before interventions can be developed, it is crucial to thoroughly understand the motivations behind pornography consumption and its complex impacts. Pornography use is an important variable to study because of its complex factors and impacts on individuals. It also leads to the evolution of several aspects of modern society. These effects will impact psychological, emotional, and moral well-being. First, the impact of pornography use on mental health is complex and multifactorial, leading to the conclusion that there is no established limit for moderate pornography use. This is because studies suggest that the negative impacts of pornography occur with high or even excessive use, leading to decreased life satisfaction, increased anxiety and depression, and difficulties in forming and maintaining meaningful relationships with others (Camilleri et al., 2021; Grubbs & Kraus, 2021).

Furthermore, regarding the impact of pornography on infidelity intentions, several studies have found a relationship between the two variables, but no causal relationship has been found. Other factors that can be and potentially be associated with pornography include perceptions of relationship satisfaction, personal values, and the individual's mental state (Floyd et al., 2020; Foubert et al., 2011; Kohut et al., 2017; Pyle & Bridges, 2012). Another variable is religiosity, which plays a significant role in controlling an individual's attitudes and behaviors regarding pornography use. However, individuals with strong religious beliefs may experience moral conflict (moral incongruence), feelings of guilt, and reduced devotional service when viewing pornography (Binnie & Reavey, 2020; Perry, 2018).

Therefore, a crucial step to facilitate further research on the correlation between these variables in Indonesia is to ensure the availability of valid measurement instruments. The importance of adapting psychological instruments in this study is to serve as reference instruments in future research on pornography and its supporting variables. The instrument to be adapted in this study is the Pornography Consumption Inventory (PCI). The PCI is a measurement tool used to determine perspectives on pornography consumption or assess motivations for pornography use. In the research by Reid et al. (2011), two studies were conducted: study 1 using a sample of men attempting to reduce pornography consumption and study 2 using a sample of hypersexual men seeking treatment. Reid et al. (2011) revealed that pornography use consists of four factors: first, pornography is used to cope with or distract oneself from unpleasant affective states and provide a feeling of relief from stress (emotional avoidance). Second, pornography use is expressed to create an element of novelty and

excitement as an escape into a fantasy world (excitement seeking). Third, pornography is used to facilitate sexual arousal and masturbation (sexual pleasure). Fourth, pornography is seen as a way to satisfy curiosity about sexual practices, learn about sexual possibilities, and expand understanding of sex (sexual curiosity) (Reid et al., 2011). The adaptation of this psychological instrument was analyzed using Rasch modeling, which plays an important role in detecting item and individual bias in measurement and in ensuring results are close to the original conditions (Bond, 2004). Adaptation of psychological instruments follows several rules and procedures outlined by the International Test Commission (ITC), which involve critical steps to ensure that the adapted test is sufficiently valid, reliable, and culturally appropriate to the intended population (ITC, 2018).

The widespread impact of pornography consumption on individuals' lives highlights the importance of further discussion of this issue, both theoretically and practically. This has prompted researchers to investigate this topic. This study aims to adapt a pornography consumption instrument that can be used in various social contexts and age groups in Indonesia. The theoretical benefit of this research is to contribute to the development of psychology by providing research findings on pornography consumption instruments that align with social norms in Indonesia. Meanwhile, the practical benefit of this research is that it can serve as a baseline for various intervention programs and policies at both the government and community levels.

Methods

Procedures

This research was conducted online by distributing a Google Form via various online platforms in Indonesia, enabling access for all internet and mobile device users. Primary data was collected from a population whose respondents were defined as individuals aged 18-40 years who had accessed or used pornography online in the six months prior to data collection. The sampling technique used was convenience sampling. This technique was chosen because there is no definitive data on the total population of pornography users in Indonesia, so the sample was selected based on respondents' convenience and willingness to participate (Jager et al., 2017).

The first analytical technique was to test the instrument's unidimensionality using Confirmatory Factor Analysis (CFA). The scale was then calibrated using the Rasch Rating Scale Model (RSM). Both techniques were performed using Mplus version 7.0 and Winsteps version 3.73 software. Additionally, to test convergent validity, the researcher conducted bivariate correlations in SPSS v22.0.

Participant

Respondents in this study numbered 207 people, with the majority of respondents in the 18-30 years age group (177 people, 85.5%), while the rest (30 people, 14.5%) were aged 31-40 years. By gender, the number of female respondents was greater (131, 63.3%) than male respondents (76, 36.7%). Furthermore, when viewed by education level, respondents were

dominated by high school/vocational school graduates (114 people, 55.1%), followed by Bachelor's Degree (73 people, 35.3%). The proportion of other education was relatively small (Master's Degree: 6.8%; Diploma: 1.9%; Junior High School: 1.0%). Most respondents (164 people, 79.2%) lived in the Greater Jakarta area, while the remaining 43 people (20.8%) lived outside it. Our respondents also had diverse professions, with students (95 people, 45.9%) followed by private-sector employees (69 people, 33.3%). The remainder were spread across the categories "Other" (10.6%), "Not Working" (6.3%), and "Civil Servants/State-Owned Enterprises" (3.9%).

Furthermore, we looked at respondents by relationship status. The majority of respondents were single (110 people, 53.1%). Other relationship statuses included "In a Committed Relationship" (17.9%), "Married" (15.9%), "Casually Dating" (8.7%), "Divorced/Separated" (1.9%), and "No Answer" (2.4%). Furthermore, we also looked at respondents' sexual orientation. The majority of respondents identified as heterosexual (183, 88.4%). Bisexuality (6.8%) was the next largest group, while others (Asexual, Homosexual, Lesbian) accounted for a tiny proportion (0.5% each). Regarding the frequency of accessing/watching pornography online in the past 6 months, the majority of respondents stated they had accessed it 1–3 times (131 people, 63.3%). Respondents who accessed it more than 10 times numbered 19 (9.2%), while those who stated they had never accessed it numbered 9 (4.3%). Other frequencies were 4–6 times (13.0%) and 7–10 times (7.7%).

Research Instrument

a. Pornography Consumption Inventory (PCI)

The Pornography Consumption Inventory (PCI) is a measurement tool used to determine perspectives on pornography consumption and assess motivations for pornography use. This measurement tool comprises 15 items across four dimensions, rated on a 5-point Likert scale from 1 (never experienced) to 5 (very often experienced). An example item, "I use it to escape into a fantasy world," has a Cronbach's alpha of 0.93 (Reid et al., 2011).

b. Psychological Well-Being Scale (PWB)

The Psychological Well-Being Scale (PWB) is a measurement tool that assesses important aspects of human functioning, including positive relationships, feelings of competence, and a sense of meaning and purpose in life. It consists of eight items, using a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). An example item on this measurement tool is "I lead a purposeful and meaningful life," with a Cronbach's alpha of 0.86 (Diener et al., 2009).

c. Intentions Towards Infidelity Scale (ITIS)

The Intentions Towards Infidelity Scale (ITIS) is a measure of intention to commit adultery that predicts a person's tendency to remain faithful to their partner. It consists of 7 items, 3 of which are reversed. Data collection used a self-report questionnaire with a range of -3 (not at all likely) to +3 (very likely). Examples of items are "how likely would you be to

lie to a partner about being unfaithful?" and "how likely would you be to tell a partner if you were unfaithful?" with a Cronbach's alpha score of 0.70 (Jones et al., 2011).

d. Muslim Daily Religiosity Assessment Scale (MUDRAS)

The Muslim Daily Religiosity Assessment Scale (MUDRAS) is an instrument that measures self-assessment of Muslim daily religiosity. It can be used by counselors, psychologists, or religious leaders to clinically identify and understand clients' religious issues. This instrument has 28 items; each measured on a Likert scale from 1 (rarely) to 5 (often). An example of an item is "swear falsely in the name of God" with a Cronbach's alpha score of 0.89 (Olufadi, 2017).

Results

Descriptive Analysis

Table 1. Descriptive Analysis

Items	Descriptive		
	M	SD	Skewness
EA1	2.47	1.05	-0.06
EA2	2.62	1.12	-0.23
EA3	2.55	1.12	-0.15
EA4	2.47	1.12	-0.04
EA5	2.40	1.13	0.10
SC1	2.82	1.01	-0.56
SC2	2.80	1.01	-0.44
SC3	2.98	0.95	-0.74
SC4	2.87	0.98	-0.51
ES1	2.60	1.10	-0.22
ES2	2.65	1.06	-0.29
ES3	2.69	1.10	-0.34
SP1	2.89	1.04	-0.58
SP2	2.73	1.06	-0.44
SP3	2.82	1.09	-0.52
N= 207			

***Key:** EA (Emotional Avoidance), SC (Sexual Curiosity), ES (Excitement Seeking), SP (Sexual Pleasure)

The provided Table 1. Descriptive Analysis offers a summary of key statistics for 15 different measurement items, labeled EA1 through EA5, SC1 through SC4, ES1 through ES3, and SP1 through SP3, based on a sample size of 207 participants. The mean scores for all items are grouped quite closely, ranging from a minimum of 2.4010 (EA5) to a maximum of 2.9844 (SC3), indicating that on average, the responses clustered slightly below the mid-point of a hypothetical 1-to-5 or similar scale, assuming a positive interpretation of the mean

difference. The standard deviations, which represent the spread of responses, are also consistent across the board, varying only slightly from 0.95158 (SC3) to 1.13054 (EA5), suggesting a similar level of variability in responses for all measured items. Regarding the shape of the distributions, the skewness values differentiate the items: the EA and ES groups exhibit very low skewness (e.g., -0.065 to 0.106), suggesting their distributions are nearly symmetrical or normal. Conversely, the items in the SC and SP groups show a notable, consistent negative skewness (e.g., -0.445 to -0.742), which means the bulk of the responses for these variables were concentrated towards the higher end of the scoring scale.

Unidimensionality and Local Independence

The analysis results show that PCI meets the assumptions of unidimensionality and local independence. The unidimensionality assumption is met based on Principal Component Analysis of Residuals (PCAR), as indicated by a variance explained by the measure value of 37.8%. The local independence assumption is also met using the Q3 method (Yen, 1984), as indicated by the residual correlation coefficients between EIS items ranging from -0.35 to 0.37. This low residual correlation range indicates that responses to other items do not influence responses to one item.

Item measure and fit statistic

The analysis results show that item 8 has the lowest logit value (-1.10), indicating that it is the easiest for respondents to agree on. Conversely, item 5 has the highest logit value (0.65), indicating that it is the most difficult to agree on among respondents. Furthermore, all PCI items have adequate infit and outfit Mean Square values, ranging from 0.7 to 1.42, in accordance with the recommended criteria for the Likert scale (Bond, 2004).

Table 2. Item Measure dan Fit Statistic

Item	Item Wording	Measure	MNSQ		PTMEA
			Infit	Outfit	
PC_1	<i>Pornografi memberikan saya kesempatan untuk mengalihkan diri dari cobaan hidup</i>	.59	.79	.80	.79
PC_2	<i>Saya mulai menggunakan pornografi ketika merasa down, sedih, atau kesepian</i>	.32	.94	.95	.78
PC_3	<i>Saya menggunakan pornografi untuk mengubah mood ketika saya sedang cemas, stress, atau marah</i>	.44	.87	.85	.79
PC_4	<i>Saya menggunakan pornografi untuk menghindari perasaan tidak nyaman atau emosi yang tidak menyenangkan</i>	.55	.84	.78	.79
PC_5	<i>Saya menggunakan pornografi untuk menjauh dari keadaan atau situasi tidak menyenangkan yang saya alami</i>	.65	.78	.70	.80
PC_6	<i>Saya menggunakan pornografi untuk mempelajari lebih banyak tentang aktivitas maupun praktek seksual</i>	-.64	1.31	1.42	.69
PC_7	<i>Saya penasaran tentang jenis aktivitas seksual yang orang lain lakukan</i>	-.48	1.25	1.29	.71
PC_8	<i>Saya menggunakan pornografi untuk memperluas pengetahuan saya tentang kemungkinan aktivitas seksual yang ada</i>	-1.10	1.19	1.29	.71
PC_9	<i>Pornografi memicu minat saya untuk lebih memahami seks</i>	-.67	1.19	1.31	.72
PC_10	<i>Saya menggunakan pornografi untuk kabur ke dalam dunia fantasi</i>	.39	.79	.73	.81

PC_11	<i>Saya menggunakan pornografi untuk menyediakan kebaharuan dan variasi dalam hidup</i>	.05	.96	.96	.77
PC_12	<i>Pornografi memberikan saya rasa kegembiraan</i>	.19	.73	.70	.82
PC_13	<i>Saya menggunakan pornografi untuk merangsang hasrat seksual saya</i>	-.42	.93	.91	.79
PC_14	<i>Saya menggunakan pornografi untuk merasakan kepuasan fisik</i>	.05	.87	.84	.79
PC_15	<i>Saya menggunakan pornografi untuk melakukan masturbasi, untuk pelepasan fisik</i>	.08	1.22	1.14	.75

Rating Scale Functioning

The RSM analysis indicates that the PCI rating scale functions well. This is evident from several indications, namely: the distribution of responses in each category is more than 10, the category thresholds in the 15 items sequentially move from low to high (step 1 = NONE, step 2 = -1.21, step 3 = -.46, step 4 = 1.67), and the MNSQ outfit value for all response categories in all items does not exceed 2.00. The even distribution of responses indicates that the response categories receive sufficient data for representative analysis. The category thresholds that move monotonically indicate there are no potential problems in the interpretation of the categories in those items. The MNSQ outfit value that meets the fit indicates that the categories function as expected and avoid potential bias in measurement.

Table 3. Rating Scale Functioning

Category Label	Observed		MNSQ		Threshold
	Average	Count (%)	Infit	Outfit	
1	-2.00	1664 (27)	.99	1.06	NONE
2	-.75	1269 (21)	.77	.70	-1.21
3	.80	1927 (31)	.87	.95	-.46
4	1.64	1320 (21)	1.22	1.19	1.67

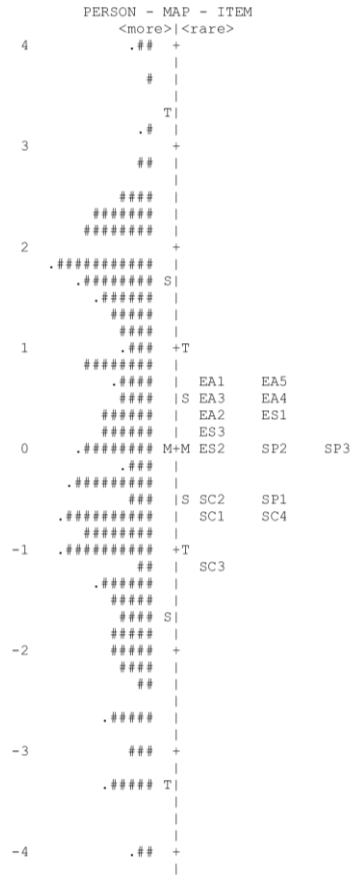


Figure 1. Item-Person Map

Based on Figure 1. It shows that the item logit value is between -1.10 and 0.65, while the majority of person logit values are above 2. This also indicates that the majority tend to answer the question items easily because the person's logit value is above the item's logit value.

Person and item reliability

The analysis results show that the PCI has satisfactory reliability. Furthermore, the items in the PCI are also able to provide adequate information regarding variations in difficulty levels (Item Separation Reliability (ISR) = .98 > .70). The scale is generally good at differentiating respondents based on their levels of pornography use (Person Separation Reliability (PSR) = .91 < .70). This means that the items in the scale are good. The scale as a whole is adequate in its ability to differentiate respondents based on their levels of pornography use.

Differential Item Functioning (DIF)

The results of the Differential Item Functioning analysis on the Pornography Consumption Inventory show that items 6, 7, 8, 9, and 15 have significant DIF with contrast values above 0.40. This means that these items differ in their measurement function for one

gender, with women and men tending to score higher on these items despite having the same level of pornography consumption.

Table 4. Differential Item Functioning

Item	DIF		t
	DIF Contrast (0 – 1)	Joint S.E	
PCI_6	.90	.23	3.69*
PCI_7	.50	.22	2.20*
PCI_8	.89	.23	3.81*
PCI_9	.45	.23	1.96*
PCI_15	.54	.23	2.40*

0 = Female, 1 = Male, *p > 0.05

Convergent Validity

Correlations

		TEA	TSC	TES	TSP	TPWB	TII	TRL
TEA	Pearson Correlation	1	.472**	.901**	.726**	-.039	.119	.018
	Sig. (2-tailed)		<.001	<.001	<.001	.630	.134	.823
	N	159	159	159	159	159	159	159
TSC	Pearson Correlation	.472**	1	.643**	.566**	.070	.064	-.029
	Sig. (2-tailed)	<.001		<.001	<.001	.378	.422	.714
	N	159	159	159	159	159	159	159
TES	Pearson Correlation	.901**	.643**	1	.926**	-.012	.124	.038
	Sig. (2-tailed)	<.001	<.001		<.001	.878	.119	.634
	N	159	159	159	159	159	159	159
TSP	Pearson Correlation	.726**	.566**	.926**	1	.003	.087	.006
	Sig. (2-tailed)	<.001	<.001	<.001		.975	.278	.937
	N	159	159	159	159	159	159	159
TPWB	Pearson Correlation	-.039	.070	-.012	.003	1	.002	-.086
	Sig. (2-tailed)	.630	.378	.878	.975		.985	.282
	N	159	159	159	159	159	159	159
TII	Pearson Correlation	.119	.064	.124	.087	.002	1	.071
	Sig. (2-tailed)	.134	.422	.119	.278	.985		.371
	N	159	159	159	159	159	159	159
TRL	Pearson Correlation	.018	-.029	.038	.006	-.086	.071	1
	Sig. (2-tailed)	.823	.714	.634	.937	.282	.371	
	N	159	159	159	159	159	159	159

** Correlation is significant at the 0.01 level (2-tailed).

* **Key:** TEA (Emotional Avoidance), TSC (Sexual Curiosity), TES (Excitement Seeking), TSP (Sexual Pleasure), TPWB (Psychological Well-Being), TII (Intentions Towards Infidelity), TRL (Religiosity).

Figure 2. Convergent Validity

Based on the correlation table, the following conclusions can be drawn regarding convergent validity:

a. High Convergent Validity:

Emotional Avoidance, Excitement Seeking, and Sexual Pleasure show very high correlations with each other (>0.7), indicating strong convergent validity among these variables. High correlations among these indicators suggest that they measure the same or highly related constructs.

b. Moderate Convergent Validity:

Sexual Curiosity has moderate correlations with Emotional Avoidance (0.472), Sexual Pleasure (0.566), and Excitement Seeking (0.643). These moderate correlations still support convergent validity, although not as strongly as those of the Emotional Avoidance, Excitement Seeking, and Sexual Pleasure groups.

c. Low Convergent Validity:

Psychological Well-Being, Intentions Towards Infidelity, and Religiosity have very low correlations with other variables, thus not supporting convergent validity for these constructs.

Conclusion: Overall, the Emotional Avoidance, Excitement Seeking, and Sexual Pleasure demonstrated excellent convergent validity, while the Sexual Curiosity had moderate convergent validity. However, the Psychological Well-Being, Intentions Towards Infidelity, and Religiosity did not have sufficient correlations to support convergent validity.

Discussions

Based on this study's results, the PCI's overall reliability and construct validity in Indonesia are quite satisfactory, despite the relatively small sample size. This proves that the PCI instrument can be used to measure a person's motivation to watch pornographic content. Several points can be highlighted in this study, including its low convergent validity with the variables Psychological Well-Being, Intentions Towards Infidelity, and Religiousness, even though the PCI construct shows good validity across its dimensions. Many factors, such as inappropriate or erroneous sampling can cause this. Respondent criteria that are too general and inappropriate sampling techniques can result in respondents who do not meet the required criteria or are not specific enough. In the study conducted by Reid et al. (2011), they used samples of hypersexual men and men trying to reduce pornography consumption that can be categorized as addiction or psychological problems.

In contrast, this study used respondents from a normal population. This may make the results less comparable with other variables. Furthermore, gender has also been shown to influence pornography consumption, including the type of media used, the content consumed, and the characteristics of the pornography itself (Prihandini, 2020). Men also report experiencing more negative effects from pornography consumption than women (Mulya & Hald, 2014).

Another factor that may contribute to low convergent validity across other variables is measurement instrument error, particularly for the Psychological Well-Being and Religiousness variables. For the Psychological Well-Being variable, adapting the Ryff scale for the Indonesian population requires rigorous validation to ensure it accurately reflects local

experiences and cultural nuances. Similarly, Marsha and Nurpatria (2018) expressed a similar sentiment, stating that the Western origins of the model may not fully capture the collectivist values prevalent in Indonesian society, where community and family ties significantly influence well-being. Meanwhile, for the Religiousness variable, the MUDRAS instrument may not fully capture the diverse expressions of Islam in Indonesia, which are influenced by local customs and traditions (Suryadi et al., 2020). The lack of literature on the concurrent validity of the MUDRAS instrument may also be one reason why the correlation between MUDRAS and PCI is relatively low.

Furthermore, several studies have found no relationship between pornography consumption and general religiosity (Prabowo, 2022). However, Hald & Mulya (2013) found that pornography is widely accepted and consumed in everyday life among university students in Indonesia, a country with a predominantly religious and sexually conservative population. These factors can be used as considerations in selecting instruments and variables related to religiosity as comparison variables in future studies on pornography.

Conclusion

This study describes the adaptation of the Pornography Consumption Inventory instrument using Rasch modeling to assess the dynamics of pornography consumption that is rampant in Indonesia. This study uses a different sample, language, and culture from the original study and relates it to variables unique to Indonesia such as religiosity. From the results obtained, this study shows that the PCI has satisfactory reliability where the items in the scale can differentiate respondents based on high and low levels of pornography use. Overall, the Pornography Consumption Inventory instrument has a high correlation between its dimensions, namely Emotional Avoidance, Excitement Seeking, Sexual Pleasure, and Sexual Curiosity. This indicates high convergent validity between the dimensions; thus, these dimensions are shown to measure the same construct. Meanwhile, the PCI showed low correlations with other variables such as Psychological Well-Being, Intentions Towards Infidelity, and Religiousness, suggesting insufficient convergent validity.

Suggestions for future research on PCI include sampling a broader, more diverse population, including age, residence, population, and other characteristics. This instrument can also be tested in both addiction and non-addiction contexts, both clinical and non-clinical, to identify differences and validate it in various contexts. Furthermore, future research is expected to identify other comparable variables that are superior to Psychological Well-Being, Intentions Towards Infidelity, and Religiousness to determine the overall strength of the PCI instrument.

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References

- Binnie, J., & Reavey, P. (2020). Problematic pornography use: Narrative review and a preliminary model. *Sexual and Relationship Therapy, 35*(2), 137–161. doi:10.1080/14681994.2019.1694142
- Bond, T. (2004). Validity and assessment: A Rasch measurement perspective. *Metodología de las Ciencias del Comportamiento, 5*(2). 179-194.
- Camilleri, C., Perry, J. T., & Sammut, S. (2021). Compulsive internet pornography use and mental health: A cross-sectional study in a sample of university students in the United States. *Frontiers in Psychology, 11*, 613244. doi:10.3389/fpsyg.2020.613244
- Diener, E., Wirtz, D., Biswas-Diener, R., Tov, W., Kim-Prieto, C., Choi, D., & Oishi, S. (2009). New measures of well-being. In E. Diener (Ed.), *Assessing well-being: The collected works of Ed Diener* (pp. 247–266). Springer Netherlands. doi:10.1007/978-90-481-2354-4_12
- Floyd, C. G., Landa, S., Saunders, M. A., & Volk, F. (2020). The moderating influence of moral disapproval of pornography on couples' sexual and relationship satisfaction. *Journal of Sex & Marital Therapy, 46*(7), 660–682. doi:10.1080/0092623X.2020.1783409
- Foubert, J. D., Brosi, M. W., & Bannon, R. S. (2011). Pornography viewing among fraternity men: Effects on bystander intervention, rape myth acceptance and behavioral intent to commit sexual assault. *Sexual Addiction & Compulsivity, 18*(4), 212–231. doi:10.1080/10720162.2011.625552
- Grubbs, J. B., & Kraus, S. W. (2021). Pornography use and psychological science: A call for consideration. *Current Directions in Psychological Science, 30*(1), 68–75. doi:10.1177/0963721420979594
- Hald, G. M., & Mulya, T. W. (2013). Pornography consumption and non-marital sexual behavior in a sample of young Indonesian university students. *Culture, Health & Sexuality, 15*(8), 981–996. doi:10.1080/13691058.2013.802013
- International Test Commission. (2018). ITC guidelines for translating and adapting tests (2nd edition). *International Journal of Testing, 18*(2), 101–134. doi:10.1080/15305058.2017.1398166
- Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). II. More than just convenient: The scientific merits of homogeneous convenience samples. *Monographs of the Society for Research in Child Development, 82*(2), 13–30. doi:10.1111/mono.12296
- Jones, D. N., Olderbak, S. G., Figueredo, A. J., Fisher, T. D., Davis, C. M., Yarber, W. L., & Davis, S. L. (2011). The intentions towards infidelity scale. In T. D. Fisher, C. M. Davis, W. L. Yarber, & S. L. Davis (Eds.), *Handbook of sexuality-related measures* (pp. 251-253). New York, NY: Routledge.

- Kohut, T., Fisher, W. A., & Campbell, L. (2017). Perceived effects of pornography on the couple relationship: Initial findings of open-ended, participant-informed, “bottom-up” research. *Archives of Sexual Behavior*, 46(2), 585–602. doi:10.1007/s10508-016-0783-6
- Kementerian Pemberdayaan Perempuan dan Perlindungan Anak Republik Indonesia. (2018). *Survei nasional pengalaman hidup anak dan remaja (SNPHAR) tahun 2018*. Retrieved from <https://www.kemennpppa.go.id/buku/survei-nasional-pengalaman-hidup-anak-dan-remaja-snphar-tahun-2018>
- Marsha, I., & Nurpatia, N. I. (2018). Psychological well-being of girls who married early because of poverty. *MANASA*, 7(1), 26–34.
- Mulya, T. W., & Hald, G. M. (2014). Self-perceived effects of pornography consumption in a sample of Indonesian university students. *Media Psychology*, 17(1), 78–101. doi:10.1080/15213269.2013.850038
- Olufadi, Y. (2017). Muslim daily religiosity assessment scale (MUDRAS): A new instrument for Muslim religiosity research and practice. *Psychology of Religion and Spirituality*, 9(2), 165–179. doi:10.1037/rel0000074
- Perry, S. L. (2018). Pornography use and depressive symptoms: Examining the role of moral incongruence. *Society and Mental Health*, 8(3), 195–213. doi:10.1177/2156869317728373
- Prabowo, D. A. (2022). Exploring the relationship between pornography addiction and religiosity. *TAZKIYA: Journal of Psychology*, 10(1), 11–19. doi:10.15408/tazkiya.v10i1.21789
- Prihandini, P. (2020). Studi komparasi chi-square perilaku konsumsi pornografi bagi remaja berdasarkan perbedaan jenis kelamin. *Jurnal Komunikasi Pembangunan*, 18(2), 163–175. doi:10.46937/18202031451
- Pyle, T. M., & Bridges, A. J. (2012). Perceptions of relationship satisfaction and addictive behavior: Comparing pornography and marijuana use. *Journal of Behavioral Addictions*, 1(4), 171–179. doi:10.1556/JBA.1.2012.007
- Reid, R. C., Li, D. S., Gilliland, R., Stein, J. A., & Fong, T. (2011). Reliability, validity, and psychometric development of the pornography consumption inventory in a sample of hypersexual men. *Journal of Sex & Marital Therapy*, 37(5), 359–385. doi:10.1080/0092623X.2011.607047
- Suryadi, B., Hayat, B., & Putra, M. D. K. (2020). Evaluating psychometric properties of the Muslim Daily Religiosity Assessment Scale (MUDRAS) in Indonesian samples using the Rasch model. *Mental Health, Religion & Culture*, 23(34), 331–346. doi:10.1080/13674676.2020.1795822