

ITEM ANALYSIS OF A SOCIAL MEDIA ADDICTION SCALE FOR YOUTH

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Abstract:

Social media use is increasingly prevalent among youth aged 18–22, influencing multiple dimensions of life including physical, mental, emotional, social, academic, and behavioural domains. Excessive usage may develop into addictive patterns, leading to impaired functioning and well-being. The main purpose of the study was to construct and standardize Social Media Addiction Scale to measure the level of addiction in youth. Rapid growth of digital communication platforms has reshaped how youth interact, learn, and express themselves. Excessive engagement social media has raised concerns about behavioral dependency. The present study describes the first tryout of a newly constructed Social Media Addiction Scale intended for youth populations. An initial scale of 84 statements was generated through theoretical review, behavioral indicators, and expert consultation. The pilot version of the scale was administered to 320 students to examine item performance and internal consistency. Statistical procedures including item discrimination analysis, item–total correlation, and Cronbach’s alpha reliability were applied. Findings indicated that most items effectively differentiated between high and low scorers, while weaker items were identified for revision. The reliability coefficient demonstrated satisfactory internal consistency for an early-stage instrument. The results confirm the usefulness of pilot testing in strengthening scale quality before full standardization. The study contributes to the development of a psychometrically sound tool for assessing social media addiction tendencies among youth.

Keywords: *Social Media Addiction, Scale Construction, Item Analysis .*

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Introduction:

Social media addiction has emerged as a significant psychological and behavioural concern among youth due to excessive engagement with digital platforms. Digital technologies have become deeply embedded in the daily routines of contemporary youth. Social media platforms serve as spaces for communication, identity exploration, entertainment, and information sharing. Although these platforms provide meaningful social and educational benefits, excessive and uncontrolled usage has generated increasing concern among educators and psychologists. Youth are particularly

vulnerable due to developmental, social, and emotional factors. Social media addiction is characterized by compulsive checking, mood modification, withdrawal symptoms, and reduced academic or social functioning. Young individuals are particularly susceptible to excessive social media use due to developmental factors such as peer influence, emotional sensitivity, and evolving self-identity. Overuse has been associated with disrupted sleep patterns, reduced academic focus, interpersonal conflict, and emotional distress. These concerns highlight the importance of early detection and systematic assessment.

This measurement tools play a critical role in identifying addiction tendencies and supporting research-based intervention. Measurement plays a central role in understanding behavioural patterns. Without reliable tools, researchers cannot accurately quantify addiction tendencies or evaluate preventive strategies. Scientific scale development requires systematic procedures including item formulation, pilot testing, empirical analysis, and refinement. The pilot phase is especially important because it allows researchers to examine item clarity, sensitivity, and consistency before large-scale application.

The present study focuses on the first try-out of a Social Media Addiction Scale designed specifically for youth. By evaluating item performance and internal consistency, the study aims to strengthen the instrument and prepare it for further validation.

Objectives of the Study:

- To evaluate the discrimination power of items in the preliminary phase of Social Media Addiction Scale Construction.
- To examine the relationship between individual items and total scores of the Scale.
- To estimate internal consistency reliability of Scale.
- To identify items suitable for retention or revision for the scale.

Review of Literature:

Previous studies indicate that behavioural addiction frameworks can be applied to digital engagement patterns. Researchers have highlighted dimensions such as Physical, emotional, time mismanagement and social withdrawal. Existing tools demonstrate variability in reliability and contextual suitability, emphasizing the need for a culturally adaptable and psychometrically sound scale.

Research Methodology :

The methodology focused on scale construction, pilot administration, and psychometric evaluation.

The present study was focused on quantitative survey research design to develop and conduct the first tryout of a Social Media Addiction Scale for youth aged 18–22 years. The methodology focused on scale construction, pilot administration, and psychometric evaluation.

Population:

The population of the study consisted of youth aged 18–22 years enrolled in undergraduate various educational institutions in academic year 25-26. Respondents represented both male and female students from urban and semi-urban, Rural areas and varied academic backgrounds, socio-cultural contexts.

Sample and Sampling Technique:

A total sample of 400 respondents was selected using purposive random sampling to ensure equal gender representation. Valid responses 318 Among the 170 were male and 148 were female.

Research Instrument :

Primary data were collected from 400 students using a structured scale consisting of 84 items, measured on a five-point Likert scale ranging from 1 (Strongly Agree) to 5 (Strongly Disagree). The instrument used was a newly developed 84-item Social Media Addiction Scale, structured around 10 components like Physical impact, Mental engagement, Emotional dependency, Social interaction.

Delimitation :

- The study is limited to youth aged 18–22 years, representing late adolescence and early adulthood only.
- The research includes 318 participants selected from educational institutions and just represent all youth populations.
- The study focuses exclusively on the first tryout of the 84-item Social Media Addiction Scale, not the final standardized version.

- Data collection relies on self-report responses, reflecting participants' perceptions at the time of administration.
- Cultural and regional diversity is limited to the institutions included in the sample.

Instrument Development

1. Preparation of the test:

The task of preparation of a scale includes item-writing, checking by subject experts and item-editing. Initial 150 items written. All the items were reviewed by subject experts. The scale items were finalized considering their inputs on the sentence construction, content language. Some items are same meaning, confusing. Out of 150 only 84 items selected for first try-out.

Administration of the Scale :

The scale was administered in classroom settings on 400 students Respondents were informed about confidentiality and encouraged to respond honestly. Completed n valid responses scales were scored systematically, and data were prepared for statistical analysis.

Statistical Analysis :

Three primary statistical procedures were used to evaluate item performance: discrimination analysis, item–total correlation, and internal consistency reliability.

1. Reliability Analysis (Cronbach's Alpha)

The internal consistency of the Social Media Addiction Scale was assessed using Cronbach's Alpha coefficient. This method is widely used to evaluate the reliability of multi-item scales and determines the extent to which the items measure the same underlying construct.

The obtained Cronbach's Alpha value of 0.9614 falls within the Excellent category. This indicates a very high level of internal consistency among the items of the Social Media Addiction Scale.

2. Item Discrimination Analysis (Discrimination Index)

Item discrimination analysis was conducted to examine the ability of individual items to differentiate between high and low scorers. Respondents were ranked based on their total scores and divided into two groups: the upper 27% (high-score group) and the lower 27% (low-score group). The Discrimination Index (D) was calculated using the Mean Difference Method.

3. Z-test Analysis

In addition, a Z-test was applied to examine the statistical significance of the mean difference between the two groups at the 0.05 level of significance. The critical value for the two-tailed test was ± 1.96 . Items with a Discrimination Index of 0.30 or above and a statistically significant Z-value were retained, while the remaining items were removed from the scale. Based on these criteria, out of 84 items, 62 items were retained and 22 items were discarded for the final scale. This procedure ensured that only effective and reliable items were included in the final instrument.

Results:

The analysis demonstrated that most items effectively differentiated between participants with higher and lower addiction tendencies. A subset of items showed weaker performance and were flagged for modification. Item–total correlations confirmed that many statements aligned well with the overall construct. The reliability coefficient indicated that the scale items function cohesively.

These findings suggest that the preliminary instrument has strong foundational qualities. Pilot testing successfully identified areas requiring refinement while confirming that the majority of items contribute meaningfully to measurement accuracy.

Discussion:

The results emphasize the importance of empirical evaluation during early scale development. Effective discrimination indicates that items capture behavioural differences relevant to addiction tendencies. Strong item–total relationships reflect internal coherence, suggesting that the scale measures a unified construct. The reliability estimate supports the stability of responses and demonstrates that the instrument is suitable for further development. Pilot testing also revealed items requiring revision, highlighting the interactive nature of psychometric construction. Refinement based on empirical evidence increases clarity and measurement precision.

The study contributes to ongoing efforts to assess youth digital behavior through culturally relevant tools. Early detection of problematic engagement can inform educational programs, counseling strategies, and preventive awareness initiatives.

Conclusion:

The pilot testing of the Social Media Addiction Scale yielded encouraging psychometric evidence. Item analysis and reliability findings support continued refinement and large-scale validation. Pilot evaluation proved essential in strengthening the measurement quality of the instrument. With further development, the scale has the potential to serve as a reliable tool for assessing addiction tendencies among youth.

Educational Implications:

- Supports early identification of excessive digital behavior
- Assists counselors in targeted intervention planning

- Provides researchers with a structured behavioral assessment tool

Limitations:

- Limited pilot sample size
- Dependence on self-reported responses
- Findings represent preliminary validation only

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