

Compulsive internet use scale test review



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Overview

Compulsive internet users according to Meerkerk is defined as Individuals who frequently stay online longer than intended and continue their online behavior despite knowledge of problems caused or aggravated by the use of the internet (Meerkerk et al., 2009). One thing to note when comparing the distinction between Compulsive internet use and Internet addiction that must be made clear is that an individual is not addicted to the internet itself, but rather to certain online activities, thus resulting in the behavior of compulsive internet use (Meerkerk et al., 2009). This overattachment to internet use can result in psychological, social, and professional impairment in an individual's everyday life. Symptoms and behaviors such as loss of control / compulsive habit, preoccupation, withdrawal symptoms, coping / mood modification, as well as conflict are 5 core elements that can be associated with Compulsive internet use. These elements are also associated with the criteria that fit with symptoms of substance dependence and pathological gambling.

Because there are individuals that may be suffering from these symptoms due to compulsive internet use, there have been various instruments and tests that seek to assess and measure these core elements. For example, the Internet Addiction Test (IAT) which contains 20-items, is an instrument which has been developed to measure problematic internet use. There are other instruments such as the Internet Addiction Scale (IAS) or the Generalized Problematic Internet Use Scale (GPIUS) which contains a similar number of items that have also been developed to measure problematic internet use. There have also been similar but different tests like the Online

Cognition Scale (OCS) that is used to measure pathological internet use containing 36-items. However, none of these instruments has gained general acceptance, with only a few being validated or tested in large general populations (Meerkerk et al., 2009). It should also be noted that these instruments tested most thoroughly are of great length, thereby jeopardizing optimal response rates in online research (Meerkerk et al., 2009). Due to these certain limitations, other forms of tests have been developed in order to improve the way this particular behavior is measured.

Compulsive Internet Use Scale

In 2009, a study which aimed to develop a test that can measure the severities of compulsive internet use was conducted by Dr. Gert-Jan Meerkerk. The result was the Compulsive Internet Use Scale (CIUS). This test was designed as an instrument that assesses the core elements of compulsive internet use (Meerkerk et al., 2009). One of the sources that were analyzed for the development of the CIUS were the criteria for dependence and pathological gambling as found in the DSM-IV (Meerkerk et al., 2009). Another source that was analyzed for CIUS development was from Griffiths' work on internet addiction which was able to formulate various six criteria for behavioral addictions (Meerkerk et al., 2009). Qualitative research among self-declared internet addicts were also among those that were analyzed for the developed or the CIUS. These sources listed were used to form the criteria into the 5 core elements that will be assessing compulsive internet use. It should also be noted that the CIUS seeks to measure compulsive internet use from private use only. By being able to measure this behavior, it can reflect the severity of the underlying compulsion or addiction

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of an individual and may therefore be potentially useful for further study of this behavior and to be able to identify groups that are at risk (Meerkerk et al., 2009).

In terms of the structure of the CIUS, the test was developed as a questionnaire set up as a ratable 5-point Likert scale, with 0 meaning *Never*, 1 meaning *seldom*, 2 meaning *sometimes*, 3 meaning *often*, and 4 meaning *very often*. A sum score will be calculated ranging from 0 to 56. These are the questions that were developed for this instrument:

1. How often do you find it difficult to stop using the internet when you are online?
2. How often do you continue to use the internet despite your intention to stop?
3. How often do others (e. g. partner, children, parents, friends) say you should use the internet less?
4. How often do you prefer to use the internet instead of spending time with others (e. g. partner, children, parents, friends)?
5. How often are you short of sleep because of the internet?
6. How often do you think about the internet, even when not online?
7. How often do you look forward to your next internet session?
8. How often do you think you should use the internet less often?

9. How often have you unsuccessfully tried to spend less time on the internet?

10. How often do you rush through your (home) work in order to go on the internet?

11. How often do you neglect your daily obligations (work, school or family life) because you prefer to go _____ on the internet?

12. How often do you go on the internet when you are feeling down?

13. How often do you use the internet to escape from your sorrows or get relief from negative feelings?

14. How often do you feel restless, frustrated, or irritated when you cannot use the internet?

This CIUS consists of 14 items which were developed to cover the 5 core elements of compulsive internet use, with each question representing a different element of that behavior. Items 1, 2, 5, and 9 covers loss of control; Items 4, 6, and 7 covers preoccupation; Item 14 covers withdrawal symptoms; Items 12 and 13 cover coping; Lastly, items 3, 8, 10, and 11 covering conflict (Meerkerk et al., 2009).

Initial Administration of the CIUS

As mentioned earlier, the Compulsive Internet Use Scale was created in 2009 by Gert-Jan Meerkerk. This particular research study is important to discuss because this was the initial administration of the CIUS which has been used as a basis or the foundation for similar studies that have assessed and <https://assignbuster.com/compulsive-internet-use-scale-test-review/>

measured compulsive internet use. In Meerkerk's research, his aim was to develop and validate the CIUS conducted through 3 studies which were all administered through online questionnaires. The purpose of the first study was to evaluate the internal consistency of the CIUS as well as the validity of the construct. The purpose of the second study was to evaluate the components of the first study once more as well as testing the invariance over time. Lastly, the purpose of the third study was to test the invariance across gender, age, and heavy vs. non-heavy internet users verified with a large convenience sample (Meerkerk et al., 2009).

Norms

The initial sample size that were gathered for the first study of Meerkerk's research of the CIUS were 447 internet users who had to meet the criteria of being at least 18, had internet access for at least 1 year, and spent on average at least 16 hours a week online for private purposes (Meerkerk et al., 2009). Participants in this study were on average 38.5 years old with 49.4% of them were male, had an average of at least 5 years of internet access, and spent on average at least 27.2 hours a week online. In the second study, the sample size was 229 internet users and were all previously participants of the first study. The third study was able to collect the largest amount of samples that is not seen in any other studies using the CIUS with a total sample size of 16,925 respondents. The participants were 77.4% male with an average age of 25.3, had an average of 5.5 years of internet access, and spent 22.5 hours a week online for private purposes.

Meerkerk's study was originally developed for Dutch internet users. Because of this, the sample for the initial administration of the CIUS was classified to represent the Dutch internet users who met the inclusion criteria (Meerkerk et al., 2009). However, there have been various CIUS studies outside the Dutch area that have been translated to fit their own language. One example of a study in which the CIUS has been translated would be the *Arabic validation of the CIUS* conducted by Yasser Khazaal which aimed to validate an Arabic version of the CIUS (Khazaal et al., 2011). The sample size of this study contained 155 Arabic-speaking participants who were 51% female with an average age of 17.6 and spent 2.5 hours daily online on average (Khazaal et al., 2011). It is also interesting to note that only 41.5% of the participants had a computer at home in this study. Another example of a similar study is the *French validation of the CIUS* which was also conducted by Khazaal which investigated the psychometric properties of the French translation of the CIUS (Khazaal et al., 2012). The sample size of this study was 126 French-speaking participants who were volunteers from the community and students (Khazaal et al., 2012). This study had an average age of 23.3 with 84.3% female. One other example of a similar study is *The validity and psychometric properties of the Japanese version of the CIUS* conducted by Roseline Kim Fong Yong which measured properties of the Japanese translated version of the CIUS (Yong et al., 2017). The sample size of this study contained 623 respondents with no significant differences in gender.

Reliability

The CIUS as well as most tests and instruments that assess psychometric properties must measure the reliability within a test in order to determine how consistent the scores and results of a test will be over time. With research studies based on the CIUS, the internal consistency method is commonly used to measure the reliability of the CIUS in terms of Cronbach's alpha. When referring to the results of Meerkerk's initial studies of the CIUS, the test proved to show high internal consistencies in all three samples of the studies, with study 1 having an internal consistency of .89, study 2 having an alpha of .89, with study 3 having an alpha of .90 (Meerkerk et al., 2009). These results show that having samples with high internal consistencies indicates a high reliability in the CIUS.

Other CIUS studies have been shown to have high reliability in their research, with each of these studies also using the internal consistency method to measure reliability in the CIUS. For example, results from a CIUS study conducted by Wartberg called *Psychometric validation of a German version of the CIUS* was shown to have a high internal consistency of .929 which can be compared to the results of Meerkerk's original version of the CIUS (Wartberg et al., 2014). Results from another study conducted by Guertler was also shown to have a Cronbach's alpha of .89, also indicating a high reliability in this research of the CIUS (Guertler et al., 2014). Results from one other study conducted by Khazaal showed to have an internal consistency of .91 (Khazaal et al., 2012). Comparing the results of these various CIUS studies can confirm that the CIUS is shown to have a strong reliability overall.

Validity

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Many of the studies that are associated with assessing the CIUS since its development have been aimed to study the structure and validation of the CIUS. This is an important component to assess and measure in a psychometric test because validity ultimately determines how well a test measures what it claims to measure. Types of validity such as content-related or criterion related validity are important as well because they affect the measurement of the test as well as the decisions individuals will make in a test.

When discussing the results of Meerkerk's CIUS study, validity is important in the development of the CIUS because the test must be able to measure the elements of compulsive internet use. Before participants took the CIUS, they were asked two questions in order to determine construct validity, which were how many days per week they were online for private purposes, and how many hours they spent online on a typical day they used the internet (Meerkerk et al., 2009). Initial results from this test were shown to be valid due to a clear correlation between compulsive internet use and time spent online, with study 1 having a correlation coefficient of .33 and study 3 having a coefficient of .42. Further construct validity was determined due to high correlation between the CIUS and the Online Cognition Scale. This correlation also determined concurrent validity as both tests measured components of pathological internet use which the OCS measures, holding a correlation coefficient of .70 (Meerkerk et al., 2009).

Upon Meerkerk's original research, other studies have sought to analyze the validity of the CIUS that the initial study recommended to address in future research. In the French validation study, Khazaal was able to determine the

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face validity of the CIUS because the test was translated in French well enough for French-speaking participants to understand, resulting in more accurate responses from participants (Khazaal et al., 2012). Results from studies which translated the CIUS into German, Japanese, and even Arabic versions were also able to determine face validity in their translated version of the CIUS as they were also successful in participants understanding what the test says.

Other studies have been able to determine other types of validity such as convergent and concurrent validity. In the study *Assessment of Problematic internet use by the CIUS and the IAT* conducted by Guertler, correlation between the sum scores of the CIUS and the Internet Addiction Test were shown to be positive, indicating convergent validity because these constructs are relatively similar to each other (Guertler et al., 2014). The correlation between the CIUS and IAT with time spent online were shown to be highly positive, indicating concurrent validity because these tests correspond with time spent online (Guertler et al., 2014). Because past studies show that the CIUS is consistent in the validity of its test, the CIUS seems to be able to determine how well it is able measure compulsive internet use.

Advantages & Disadvantages

Upon analyzing various studies of the CIUS, this test can be seen to have three major advantages. The first advantage of the CIUS is that it is time-saving. When comparing the CIUS to other tests that assess compulsive internet use, tests such as the online cognition scale containing 36-items or

the internet addiction test containing 20-items usually take longer for the participant to finish, while the CIUS only contains 14-items. The brevity of the CIUS makes it possible to combine the test with other measures without threatening response rates (Meerkerk et al., 2009). The second advantage of the CIUS is that it is easy to measure. Since this test is mostly assessed through an online questionnaire as well as containing a short number of items, the CIUS is able to easily be assessed and measured. Another reason the CIUS is easy to measure is because this test measures specifically uncontrolled internet use rather than related psychosocial well-being (Meerkerk et al., 2009). One other advantage of the CIUS is that it shows factorial invariance across age, gender, time, as well as heavy vs. non-heavy internet users, which means that the CIUS can be taken by anyone regardless of who they are.

There are however three certain disadvantages which can affect the CIUS. The first disadvantage is the response styles. Because the CIUS is structured as a Likert scale format, respondents might avoid choosing extreme options of the scale, failing to measure the true attitudes of the participants. Social desirability may be another response style that can also affect the score of the individual assessed by the CIUS as well. Another disadvantage that can be addressed is the sample selection bias. Upon analyzing various studies pertaining to the CIUS, most of these studies seem to lack a general population sample, with many studies of the CIUS have been based on high-risk populations or convenience samples consisting of mostly young adults. One other disadvantage of the CIUS is the specificity of compulsive internet use. Depending on the specific nature of the online activity whether it may

be checking social media or playing online games, the behavioral manifestations of compulsive internet use may vary.

Summary & Conclusion

Comparing the difference between present day and when the CIUS was developed in 2009, the internet has now become so much more easily accessible primarily due to smartphones. In present day, it is evident that most people have a smartphone in their possession and to have a smartphone is now considered a social norm in our society. Our society is now dependent on smartphones because of how easily accessible it is to the internet as well as the integration of common website and social media into our daily lives. With a smartphone, an individual is able to access the internet in a touch of a button. This sudden shift in technology must be acknowledged in future studies of the CIUS because the easy accessibility of a smartphone may increase standard internet use which can possibly interfere with the norms and the validity of the CIUS, especially when comparing measures of time spent online.

In conclusion, the items and the format that make up the CIUS seems to be able to properly ask and measure the core elements that characterizes compulsive internet use, as findings from various studies and reports supporting the CIUS as a valid and reliable assessment instrument for compulsive internet use. The CIUS may be used to contribute to future research about related issues of internet use as well as preparing for the increase in internet use due to the progression of communication technology we see today.

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