# Internet Addiction and Spiritual Vulnerability of Adolescents in Public Secondary Schools in Owerri, Imo State of Nigeria

**Alaribe Gilbert N. PhD[1]; Nzeh Atracta A. PhD[2]; Kokey Grace C. PhD[3]**

Department Of Religion, Alvan Ikoku Federal University of Education, Owerri, Imo State of Nigeria.

**\*Corresponding Author**: Alaribe Gilbert N. PhD

| Article History | Abstract |
|---|---|
| **Original Research Article** | |
| Received: 20-02-2026 | |
| Accepted: 15-03-2026 | |
| Published: 23-03-2026 | |

*Though, the internet is a very important development in the life of humans as it widens the mental horizons of man. Man has strove in many aspects of life because of his intellectual prowess as a result of his dependence on the internet. It is obvious that the internet has some flaws that can mar the character of human beings, more especially the vulnerable folks as the youths. It is undoubtable that both adults and adolescents are affected by the menace of the internet, but reliance on the internet by adolescents has made them to be slaves to the internet sacrificing their future for the internet, thereby murdering their academic success. When wrongly used the internet becomes a stumbling block to achieve a greater height as it corrupts the moral development of these young people. Many adolescents are seen today navigating into sites not encouraging for their young minds. Pornography and other eyesore movies have taken their toll on adolescents` life as they concentrate on watching them than reading their books. The question is who are to be blamed for this? Parents are to be blamed as they buy phones for them at this tender age when they are not supposed to use such. The study adopted correlational survey research design. The population comprised all the public senior secondary school students in Owerri, Imo State numbering 26,836. The proportionate cluster random sampling technique was used to get a sample size of 382 from the population of the study. Adolescent Addiction and Spiritual Wellness Rating Scale was used for data collection. It is recommended among others that Secondary Education Management Board should formulate policies that will discourage overuse of the internet by adolescents, and parents should monitor their children on too much use of the internet at home.*

***Keywords:*** *Internet, Addiction, Spiritual, Vulnerability, Adolescents.*

## Introduction

The influence of internet addiction on adolescents in public secondary schools in Owerri, Imo state of Nigeria poses an important question to be answered as regards the spiritual life of these young ones. What becomes of their spiritual life when they exchange academic excellence and spiritual growth for internet addiction and technological hypnosis? This contemporary dilemma finds a powerful real explanation in public secondary schools in Owerri, Imo state of Nigeria. Indeed, internet addiction is fast becoming a menace to adolescents` collective educational and spiritual well-being. As supported by Etitnwo & Onyido (2020) scholars have emphasized the weak minds adolescents have and the influence of their environment and social media on their behaviour, religion and academic

performance. Mami and Hatami-Zad (2014) stressed that the compelling nature of the internet makes adolescents susceptible to the harmful influences of the internet. Some of these bad influences the internet has on adolescents are sleep deficiency, social decline, poor mental health and poor spiritual health all which are contributing factors to poor academic performance (SpeedyPaper, 2023). Although the internet has become an indispensable tool in almost all areas of life, thereby, making humans more digital beings with virtual approval and less real existence. In fact, becoming "digital beings" can lead to spiritual vulnerability. Spirituality is more of a spiritual communion than a digital connection. In fact, unchecked use of the internet amongst students in secondary schools can lead to

simulated care instead of real empathy amongst students and even affect student-teacher interpersonal relationships, thereby leading to digitalized isolation. The study on internet addiction in Owerri, Nigeria, highlights a quantum shift in the human and educational experience, the transition from "real existence" to a "digital being" fueled by "virtual approval". Hence, when students trade tangibility for virtuality, the spirit often pays the price through what this study calls "spiritual vulnerability".

However, the internet has come to stay; we cannot stop it, and should not demonize it. It has a lot of benefits for humanity, ranging from the extension of human capacity to the enhancement of human efficiency, but we should change our attitude towards it and see it as a collaborative instrument and not as a dependent tool. The internet is a global system of interconnected networks that primarily provides wireless interactive communication (Asianet Fibers, 2018). The internet is useful in providing effective communication, improving business interactions and transactions, enhancing qualitative and effective education, and facilitating scientific investigation /research (Asainet Fibers, 2018). Over the last 15 years, internet use has grown very rapidly in contemporary society, to the extent that approximately 40% of the world population is online (Poli, 2017). The increasing popularity and frequency of internet use have led to the emergence of clinical cases preventing abuse symptoms (Spada, 2014). In recent years, the term addiction has been expanded beyond substance dependence to include non-substance, related behaviors that cause problems or impairment (Van Rooy and Prause, 2014). Owing to this, internet addiction refers to someone compulsively using the internet to the point that it becomes a problem, negatively affecting how they function in life (Reed, 2025). Internet addiction has been classified into: cybersexual addiction: involves individuals engaging in viewing, downloading and treating online relationships as more important than real life ones with marital discord and family instability (Chart rooms, social networks); Netcompulsion: occurs in form of gambling, shopping, trading online; information overload, excessive web surfing and information and data base search: Computer addiction; occurs when individuals are overly engaged with pre-programmed games (Young as cited in Poli, 2017). Many of the adolescents are addicted to the internet to the extent that, on the road, in the market, at home, and even in the church, they are on the internet. Many will remain awake through all night accessing the internet or using social media platforms that uses internet. They are glued to their phones, computer devices for accessing the internet.

Besides these forms of internet addiction that suggest that it might have some impact on the spiritual wellness of the adolescents who are victims of the behavioral problem.

Studies show that increased use of Facebook amongst young individuals trigger mental health problems, hinder communication between excessive users and their peers, promote low self-esteem, depression and mood swings are associated with young people's excessive use of Facebook (Mamun &Griffuth, 2019; Bhachinio, Przepiorka and Pantric, 2016). Also, the need to frequently check for recent pictures, videos and posts from celebrities have been found to induce hyperactivity which gradually inhibit Psycho-social adjustment (Barry, Sidoti, Briggs, Reifer and Lindsey, 2017). Owing to these reports and nature of the forms of internet addiction highlighted, there seems to be a relationship between adolescents that have internet addiction and their level of spiritual wellness or fitness. Spiritual wellness is very important for healthy living. It has been defined in various ways. The University of Waterloo (2025) describes it this way:

> spiritual wellbeing is the ability to establish peace and harmony in our lives through a guiding set of beliefs, faith, value, ethics or moral principle that provide meaning, direction and purpose it also a search for meaning and purpose in human existence leading to one to strive for a state of harmony with oneself and others while working to balance inner needs with the rest of the world spiritual wellbeing includes the development of characteristics such as compassion, forgiveness, altruism, optimism and happiness (p. 8).

Meanwhile, the primary spiritual setback for students is the erosion of interiority. A spirit that is constantly reacting to social media notifications loses the ability to listen to the notification of the spiritual voice of God or the depths of its own conscience. The internet encourages us to create a digital image (an Imago Digital) that we worship through likes, comments and shares, often at the expense of the Imago Dei (Image of God) within us. Sometimes, the things of the world or scandals get more likes than the things of the spirit. Spirituality requires being "here and now." Internet addiction pulls the spirit into a state of "everywhere and nowhere" leading to a fragmented soul that can no longer find rest in the present moment. An endless scroll from one digital platform to another can lead to a state of spiritual boredom or indifference toward meaningful, effortful religious or moral practices. In the words of Saint Augustine, our souls will not rest until they rest in the Lord and not in the internet. When we trade "real existence" for "virtual approval", or we prioritize "virtual approval" over physical approval, our spiritual soul experiences "empty calories" with no spiritual fiber or protein. What happens is a displacement of identity; our worth becomes external and quantified by others, rather than internal and grounded in being a child of God. The spirit becomes fragile because its

"approval" is based on the shifting whims and algorithmic approval. Meanwhile, a research conducted by Moralty In Media, an independent institution located in the United States found out that there is a connection between pornographic material on the internet that can lead to addiction to the user (Ardi, Kharina & Sukmawati, 2018, p. 46). They further explained by citing (Antons & Brand, 2018; Maas & Dewey, 2018), that adolescent addiction to pornographic material on the internet, equivalent to heroin addiction, makes consumers trapped and take over their lives (p.47).

Spiritual well-being refers to the state of one's relationship with God, characterized by a deep sense of peace, purpose and fulfillment derived from a life aligned with biblical principles. It encompasses the health of one's spiritual life, including faith, prayer, worship, and obedience to God's word. Spiritual well-being is fundamental to the Christian life, as it influences all other aspects of a believer's existence (Bible Hub, Topical Encyclopedia, 2025).Some researchers have shown that 51.10% of students in a survey were found to have internet addiction (Prapti, Ganga, Khadja & Siyata, 2024). Also found is that internet addiction has negative effects on adolescent mental, psychosocial and physical health, with 43.4% and 8.8% respectively (Ozparlak, & Karakaya (2020). Usually, people, especially the youth, do not give much attention to something which they do not understand how it benefits them. Almal (2024) maintains that spiritual wellness is of critical importance to man, which, among others, helps to: strengthen relationships with others; breathe positivity into the space we occupy; impact our lives in a way that supports our life purpose and values; practice self-compassion, confidence and resilience; and be accountable and responsible for our own actions. However, for students, Jaada school (2025) highlighted the benefits of spiritual wellness to students which includes helping them to: build strong moral foundation, be emotionally strong (that is students are grounded in values like patience, gratitude, and trust); develop good character like empathy, compassion, honesty, and respect; balance growth; learn to serve others and being humble and responsible; and integrate modern competence.

The Bible Hub (2025) outlines the measures of an individual's spiritual wellness as: faith and trust in God (Hebrews 11:6); prayer and communication with God ( 1 Thessalonians 5:17); study and application of the scripture (psalm 119:105); worship and praise (John 4:24); obedience and holiness (1 peter 1:15-16); fruits of the Holy Spirit (love, joy, peace, patience, kindness, goodness, faithfulness, gentleness and self-control; and engagement with community of believers for good work (Hebrews 10:24-25). Spiritual wellness is indeed critical for the overall development of adolescents. If our adolescents are helped to understand what it is and how it affects their overall life, they can easily carry out self-examination as the Scripture recommends. There is no doubt that these values and beliefs will help the interested individual to find out his purpose in life and work to actualize it. Certainly, it helps one to find inner peace, to know who he/she is, and to live a fulfilled life on earth (Gee, 2024). However, many are not spiritually balanced, and it seems that no effort in terms of research has been made to ascertain adolescents' level of spiritual wellness and whether there is any relationship between adolescent internet addiction and spiritual wellness.

The researchers have observed with dismay the poor attitude of adolescents towards the use of the internet, which suggests that they may have been addicted to internet use. Too many of them cannot do without internet use. On the road, walking they are online, many are anxious when there is no or a poor network. Some groups of researchers have shown that 51.10% of students in a survey were found to have internet addiction (Prapti, Ganga, Khada & Siyata, 2024). Also found is that internet addiction has negative effects on adolescents' mental, psychosocial and physical health, with 43.4% and 8.8% respectively (Ozparlak & Karakkaya, 2020). In a study, a simple regression of spiritual practices and psychological well-being yields an R-square value of 0.5989. This means that spiritual practices account for 59.9% of the variation in psychological well-being (Ridhee & Urmila, 2025).There have been studies linking internet use with some other variables other than spiritual wellness, and also, spiritual wellness with other variables too. However, there is no empirical data on adolescents' internet addiction, and spiritual wellness has not been very clear in Nigeria, especially at senior secondary schools and in Owerri Education Zone 1 in particular. Also, these unclear situations constitute the problem of the study.

Furthermore, if we must choose to be physically human, spiritually digital or spiritually "hybrid", we must reclaim our real spiritual heritage, we must return to live and embodied experience and "incarnational living." God, after creating human beings, rested on the Sabbath, so we need to create a digital Sabbath for resting, to allow the spirit to breathe and concentrate on seeking "approval" of God's love and not only human "likes" and "shares". Our biology still requires sleep, food, and touch. Our spirits, however, through constant use of the internet, are being "re-programmed" by digital logic (speed, efficiency, performance).In this research, we wish to advise public secondary school students, especially those in Owerri, imo state, Nigeria, that if we lose "real existence," we lose the

very platform upon which the spirit grows, and real human academic thrives.

Therefore, I suggest that the Ministry of Education should develop a workshop to outline the advantages and disadvantages of the internet and how to use it. Today, in the western world, many countries like France have limited those below the age of 15 from owning smartphones, and some countries have also control measures with the use of digital tools.

**Research Questions**

The following research questions guided the study.

1. What proportion of adolescents is addicted to the internet?
2. What proportion of students scored above the expected average on the spiritual wellness rating scale?
3. What is the relationship between adolescents' internet addiction and spiritual wellness?

**Hypotheses**

The following hypotheses were formulated and tested at 0.05 level of significance.

$H_{01}$: The proportion of adolescents who are addicted to the internet is not significantly different from the expected proportion of 0.25(that is, ¼).

$H_{02}$: The proportion of adolescents who scored above the expected average level (14×2.5) is not significantly greater than the expected proportion 0.5 (that is ½).

$H_{03}$: The correlation coefficient between adolescent internet addiction and spiritual wellness is not significantly different from zero.

## Method

A correlational survey research design was adopted for the study. The population comprised all the public senior secondary school students in the 76 public secondary schools in Owerri Education Zone totaling 26, 836 (Planning Statistics and Research unit of Secondary Education Management Board on students' enrolment 2025/2026 academic session). Proportionate cluster random sampling technique was used to draw a sample size of 382 from the population of the study. The instrument for data collection was a rating scale titled: Adolescent Addiction and Spiritual Wellness Rating Scales. It consists of two clusters: A and B, which represent adolescents' level of spiritual wellness respectively. It is structured into a four-point scale of: Very High Extent (VHE) (4-point); High Extent (HE) (3-point); Low Extent (LE) (2-point), and Very Low Extent (VLE) (1-point). Clusters A and B contain 9 and 14 items respectively. The instrument for data collection is vetted by two specialists in Christian Religious Studies and two experts in Educational Measurement and Evaluation. Cluster A and B have reliability coefficient of internal consistency of 0.84 and 0.89 respectively using Cronbach Alpha Statistics and reliability coefficient of temporal stability of 0.94 using test-retest approach and Pearson Product Moment Correlation Coefficient Formula. Mean standard deviation, proportion and phi-coefficient were used to answer the research questions, while the z-test and chi-square statistics were used to test the hypotheses at 0.05 level of significance.

## Results

### Table 1: Proportion of Adolescents that is Addicted to Internet Use

| Total No. of Adolescents | NAAI | Reporting of NAAI |
|---|---|---|
| 382 | 145 | 0.379 |

NAAI= no. of adolescents that are addicted to internet use

Table one shows the total number of adolescents under study and the number that is addicted to internet use as 382 and 145 respectively, giving a proportion of 0.379 (that is, 145/382).

### Table 2: Summary Result of z-Test of Hypothesis One

| Category of proportion | Proportions | P | Q | z-cal. | SL | z-tab. | Dec. |
|---|---|---|---|---|---|---|---|
| Expected | 0.25 | 0.315 | 0.685 | 03.87 | 0.05 | 1.96 | $H_{o1}$ is Accepted |
| Observed | 0.38 | | | | | | |

Table 2 shows that the z-calculated is greater than the z-tabulated at 0.05 level of significance, hence the null hypothesis is rejected. This means that there is a significant difference between the proportion of adolescents who are addicted to the internet and the expected proportion of 0.25 (that is ¼).

**Table3: Proportion of Adolescents who scored Above Expected Average on the Spiritual Wellness Rating Scale**

| Table No. of Adolescents | No. NAAEASWRS | Proportion of NAAEASWRS | % of NAAEASWRS |
|---|---|---|---|
| **382** | 195 | 0.51 | 51.05 |

NAAEASWRS= No. of adolescents that is above the Expected Average Level on the Spiritual Wellness Rating Scale.

Table 3 shows the total number of adolescents that are studied, the number of adolescents that are above the expected average level on the spiritual level on the spiritual wellness rating scale, as 381 and 19, respectively, with proportions and percentages of 0.51 and 51%, respectively.

**Table 4: Summary Result of the z-test of Hypothesis Two**

| Category of proportion | Proportions | P | Q | z-cal. | SL | z-tab. | Dec. |
|---|---|---|---|---|---|---|---|
| **Expected** | 0.50 | 0.505 | 0,495 | 0.28 | 0.05 | 1.96 | $H_{o2}$ Accepted |
| **Observed** | 0.51 | | | | | | |

Table 4 shows that the z-calculated is smaller than the z-tabulated at 0.05 level of significance, hence the null hypothesis is accepted. This means that there is no significant difference.

**Table 6: Relationship (Phi-Coefficient) Between Adolescents' Level on Internet Addiction Rating Scale and Their Level on Spiritual Wellness Rating Scale**

| Category of Adolescents | Chi-Square | N | Phi-Coefficient ($\phi$) | Interpretation |
|---|---|---|---|---|
| **ALIARS** | 174.53 | 382 | 0.68 | High relationship |
| **ALSWRS** | | | | |

ALIARS= Adolescents level on internet addiction rating scale; ALSWRS= Adolescents level on spiritual wellness rating scale

Table among others shows the coefficient of relationship (that is Phi-coefficient of the two variables as 0.68 which means that the two variables are highly related / associated.

**Table 6: Summary Result of Chi-Square Tests of Hypothesis Three**

| $X^2$ calculated | N | Df | SL | $X^2$ tab. | Dec. |
|---|---|---|---|---|---|
| **173.53** | 382 | 1 | 0.05 | 3.84 | $H_{O3}$ is rejected |

Table 6 shows that the chi-square calculated is greater than the chi-square tabulated at 1 degree of freedom and 0.05 levels of significance, hence the null hypothesis three is rejected.

## Discussion of Result

The result of the study shows that there is a significant difference between the proportion of adolescents who are addicted to the internet at 0.25. This means that the observed proportion of 0.379 is significantly greater than the expected proportion of 0.25.It also means that more than 25% of the sampled population is internet addicted. This finding seems to be significantly below what was found in India, where the percentage of sampled secondary schools that are internet addicted is 51.10% (Prapti, Ganga, Khadga & Suyata, 2024). The reason for this great difference could

be primarily due to poor infrastructural facilities like epileptic power supply and poverty, as many students may lack funds to buy data, which is indispensable in accessing the internet. These critical factors could be responsible for the disparity. However, the present findings imply that the family, mostly parents need to help adolescents to control this anomaly. The findings also showed that 0.51 51% of adolescents sampled scored below the expected average level on the Adolescent Spiritual Wellness Rating Scale. This is really serious. The present study means the parents, the church, and the school still need to put more effort towards the spiritual wellness of the students.

The study also sought to establish that a high association exists between adolescents' internet addiction and their spiritual wellness. This finding is very instructive. Close examination of the observed frequency reveals that most of

the students who have high internet addiction on the internet addiction rating scale have low spiritual wellness, while those who are below the expected average on the internet addiction rating scale have high spiritual wellness. This is revealing to the stakeholders of the adolescents' education, like the parents, religious organizations and teachers. They directly or indirectly have the responsibility of ensuring that the adolescents are positively influenced to achieve spiritual wellness and conquer internet addiction. They need to put more effort into helping the adolescents explain to them how they could gradually slide into internet addiction without being conscious of it and its attendant consequences, one of which is that it negatively influences spiritual wellness. The Bible exhorts that self-control is one of the fruits the Spirit (Galatians 5:22). The Christian adolescent should be encouraged to have self-control as regards the use of the internet. The internet should not be controlling adolescents. Also 1 Corinthians 6:12 says "all things are lawful for me, but not all things are helpful, all things are lawful for me but I will not be enslaved by anything". This shows that permissible things should not control us. Many of our adolescents need help. Many are enslaved by the internet, and they need to be delivered through enlightenment and instructions at home, school or at the worship centre. Unless this is achieved, the expected spiritual wellness of many adolescents may not be achieved.

## Recommendations

Based on the findings, the following recommendations are made:

1. The government in collaboration with the Ministry of Education should make compulsory Moral Education in secondary schools.
2. The Secondary Education Management Board should formulate policies that will discourage overuse of the internet by adolescents.
3. Parents should monitor their children on too much use of the internet at home.
4. Religious leaders should ensure they teach more about spiritual wellness and factors that affect it, like internet addiction.

## Conclusion

The study has investigated internet addiction and spiritual wellness among public secondary school adolescents and has made significant findings that are helpful for the good of adolescents and the society at large. It is expected that the government, teachers, parents and our religious leaders should utilize them for the good of the adolescents, especially in overpowering internet addiction and helping adolescents to develop spiritual wellness. It is not arguable that the internet is good for academic uplift, but overuse of it becomes a menace to adolescents who see it as a means of relaxation and enjoyment at the detriment of their academic achievement which will make them independent and reliable citizens that we shape the nation for good. The researchers urge the government with the help of the Secondary Education Management Board to take necessary steps to encourage students to desist from the habit of being engrossed in the use of internet for any other thing other than academic purpose. Parents on their part should know that the future of their children lies in their hands therefore they have a lot of work to do as regards monitoring the activities of their children at home to make sure that they concentrate on reading their books than watching obscene movies or images on the internet. The teachers are not left out in encouraging the adolescents to focus on their academics than lazing away watching images on the internet that cannot help in their academic uplift.

## References

1. Almal, S. (2024). *How spiritual wellness unlocks creativity and resourcefulness*. https://www.p.com/blog/what-is-spiritual-wellnesss-anwhy-is-it-so-important.

2. Ardi, Z., Kharina, V. & Sukmawati, I. S. (2018). An analysis of internet abuses impact on children's moral development. *JPPI (Jurnal Penelitian Pendidikan Indonesia, 4*(1), 44-50. http:jurnal.iicet.org|DOI

3. Asianet Fiber (2018). *Effects of internet on the society*. https://asianetbroadband.in/effect-of-internet-on-society/.

4. Barrt, C. T. Sidoti, C. L., Briggs, S. M. Reitres, S. R. and Lindsey, R. M. (2017. Adolescent social media use and mental health from adolescent and parents' perspective. *Journals of Adolescence*, 6 93)1-11.

5. Bhachimio, A. Przepiorka, A. and Pantic, I. (2016). Association between facebook addiction, self-esteem and life satisfaction: A cross-sectional study. *Computers in Human Behavior*, 55(2), 701-705.

6. Bible Hub (2025). *Spiritual well-being* . https://biblehub.com/yopical/s/spiritual-well-being.htm.

7. Etitnwo, G. & Onyido, J. A. (2020). The internet and its impact on moral development of secondary school students in Rivers state. *Journal of Education in Developing Areas*, 27(1). http://journals.journalsplace.org/index.php/JEDA/article/view/179

8. Gee, O. (2024). *Ten simple ways to boost your spiritual wellness 2025*. https//www.thrivewithdrge.com/blog/10.simple-ways-to-boost-your-spiritual-wellness.

9. Greek for Greeks (2025). *What is internet?* https//www.greeksforgreek.org/

10. Karism, R. Chaughri, P. (2012). Behavioral addiction an overview. *Journal of Psychoactive, Drugs, 44*(1), 5-17.

11. Mamum, M. A. and Griffiths, M. D. (2019). The association between facebook addiction and depression. A pilot study among Bangladesh students. *Journal of Psychiatry Research 27*(3), 628-633.

12. Ozparlak, A. B. S. N. and Karakaya, D. (2020). Internet addiction in adolescents: A systematic review of nursing studies. *Journal of Psychosocial Nursing and Mental Health Services 58*(3), 47-55.

13. Poli, R. (2017).Internet addiction update: Diagnostic criteria assessment band prevalence. *Neuro psychiatry (London), 7* (1),4-08

14. Portal Clinic (2019). *Addiction to the internet*. https://www.clinicbarcelona.org/enlassistance/be-healthy/addicition-to-the-internet/symptoms#feedback

15. Prapti, G., Ganga, K., Khadga, B, S. Suyata, S. (2024). *Internet addiction prevalence and associated factors among secondary level private school students in Urban Nepal: a cross-sectional study*. https://bmjo.bmj.com/content/114/11/eo83907/

16. Reed, S. (2025). *Internet addiction*. https://www.addictiocenter.com/behavioraladdiction/internet-addiction/

17. Ridhee, A. and Urmila *Spiritual not clear there is an association between the adolescents internet use*. https =al wellness.

18. Spada, M.M. (2014). An overview of problematic internet use. *Addictive Behaviors, 39*(1), 3-6.

19. SpeedyPaper. (2023, October 29). *Teenagers' internet use: Moral and Psychological impact-paper example*. https://speedypaper.com/essays/teenagers-internet-use-moral-and- psychological-impact

20. University of Waterloo. (2025). *Engineering wellness program: spiritual wellbeing*. https://waterloo.ca/engineering-wellness-progrsm/the-nine-dimesions-wellness/spiritual-wellness.

21. Van Booy, A. J. & Prause , N. (2014). A critical review of internet addiction critical review with suggestions for the future. *Journal for Behavioural Addiction. 3* (4), 203-213).

## Instrument for Data Collection

**Instruction:** Please read each question and statement carefully. Check and tick (√) the option which best describes your opinion for each of the following items.

**Note:** VHE= Very High Extent (VHE) (4); HE= High Extent (HE) (3); LE= Low Extent (LE) (2); VLE = Very Low Extent (VLE) (1)

**Adolescents Addiction and Spiritual Wellness Rating Scale (AASWRS)**

**Cluster A**

**Adolescents Level on Internet Addiction**

To what extent do you experience each of the following?

| S/N | Item Statements | VHE | HE | LE | VLE |
|-----|-----------------|-----|-----|-----|-----|
| 1 | Continues thinking about the activity that is being carried on the internet | | | | |
| 2 | Feels excited on using the internet | | | | |
| 3 | Becomes anxious when internet cannot be used | | | | |
| 4 | Becomes stress-up when internet cannot be used | | | | |
| 5 | Feeling of guilt due to being connected for longer than was wished | | | | |
| 6 | Having sleep problems due to excessive use of internet | | | | |
| 7 | Withdrawal from leisure activities e.g., sports, going out with friends | | | | |
| 8 | Lack of personal hygiene-not taking bath when necessarily due to spending too much time | | | | |
| 9 | Presence of neckache and backbone. | | | | |

**Adolescent level of spiritual wellness**

To what extent do you exhibit the following features?

| S/N | Item statement: I | | | | |
|-----|-------------------|---|---|---|---|
| 1 | Have faith and trust in God | | | | |
| 2 | Always pray and commune with God | | | | |
| 3 | Always study my Bible | | | | |
| 4 | Always apply what I learnt from the Bible in my daily living | | | | |
| 5 | Obey God's word | | | | |
| 6 | Love my neighbours and treat them the way I would want them to treat me | | | | |
| 7 | Joy and peace of mind | | | | |
| 8 | Always kind and patient with one another | | | | |
| 9 | Self-control in dealing with people | | | | |
| 10 | I am part of the community of believers that encourages one another with God's Word to do good works. | | | | |
| 11 | I am resilient | | | | |
| 12 | Always honest | | | | |
| 13 | Always grateful | | | | |
| 14 | Always humble and respectful | | | | |

Results of Data Analysis Concerning Hypothesis Two

Expected Proportion=0.50= $P_1$

Observed Proportion= 0.51= $P_2$

No. of Adolescents= n,= 382

$$= \frac{n_1 p_1 + n_2 p_2}{n_1 + n_2}$$

$$= \frac{382 \times 0.50 + 382 \times 0.51}{382 + 382}$$

$$= \frac{191 + 194.82}{764}$$

$$= \frac{240.660}{764}$$

= 0.505

p+q =1

q=1-0.505

= 0.495

$$Z = \frac{P_1 - P_2}{\sqrt{\frac{2pq}{n}}}$$

$$= \frac{0.50 - 0.51}{\sqrt{\frac{2 \times 0.505 \times 0.495}{382}}}$$

$$= \frac{-0.01}{0.03599}$$

/z/= 0.277

Results of Data Analysis Concerning Hypothesis One

Expected Proportion=0.25 (that is ¼)= $P_1$

Observed Proportion= 0.38=$P_2$

No. of Adolescents= n,= 382

$$= \frac{n_1 p_1 + n_2 p_2}{n_1 + n_2}$$

$$= \frac{382 \times 0.25 + 382 \times 0.38}{382 + 382}$$

$$= \frac{95.5 + 145.16}{764}$$

$$= \frac{240.660}{764}$$

= 0.3150

p+q =1

q=1-0.315

= 0.685


Results of Data Analysis Concerning Hypothesis Two


$$Z = \frac{P_1 - P_2}{\frac{\sqrt{2pq}}{n}}$$

$$= \frac{P_1 - P_2}{\frac{\sqrt{2 \times 0.3150 \times 0.685}}{382}}$$

$$= \frac{0.13}{0.0336}$$

= 3.867

**Research Question Three and Hypothesis Three**

| Spiritual Wellness | Internet addiction ≥ 22.5 | Internet addiction <22.5 | Total |
|---|---|---|---|
| ≥35 | 25 | 180 | 195 |
| <35 | 130 | 57 | 187 |
| Total | 145 | 237 | 382 |

Expected Frequencies : $\frac{C_T \times R_T}{G_T}$

Cell 1:$\frac{145 \times 195}{382} = 72.02$

Cell 2: $\frac{235 \times 195}{382} = 120.98$

Cell 3: $\frac{145 \times 187}{382} = 70.98$

Cell 4: $\frac{237 \times 187}{382} = 140.49$

| S/N | O | E | $(O-E)^2$ | $(O-E)^2/E$ |
|---|---|---|---|---|
| 1 | 15 | 74.02 | 3483.36 | 47.06 |
| 2 | 180 | 120.98 | 3483.36 | 28.79 |
| 3 | 130 | 70.98 | 3483.36 | 49.06 |
| 4 | 57 | 140.49 | 6970.58 | 49.62 |
| | | | | 174.53 |

$$\phi = \sqrt{\frac{x2}{N}}$$

$$= \sqrt{\frac{174.53}{382}}$$

=0.675

=0.68