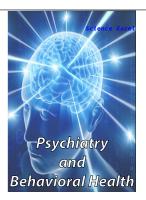
### **Psychiatry and Behavioral Health**



# Identification And Treatment of Patients With Problem Gambling in Nigeria: Can Psychiatrists Help?

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#### **Abstract**

Given the likely consequence of undetected problem gambling, there is a need to evaluate the attitudes of psychiatrists in Nigeria toward the need to get involved in the identification and treatment of patients with problem gambling.

Fifty-five out of 68 psychiatrists that attended the Association of Psychiatrists in Nigeria conference in Lagos, participated in the cross-sectional survey. A self-completion questionnaire was used to explore the psychiatrists' attitudes. Independent t-test and Analysis of Variance were used to examine the association of perceived attitudes and other variables. Regression analysis was used to determine independent predictors of positive attitudes. P-value  $\leq 0.05$ .

Psychiatrists had positive attitudes about getting involved in the identification and treatment of problem gambling even though only 18.20% of them had had training on problem gambling. The independent predictors of more positive attitudes were female gender ( $\beta$ =.23, p=.02), the knowledge that problem gambling commonly occurs with mental illness ( $\beta$ =-.29, p=.007), and confidence in detecting problem gambling ( $\beta$ =-.29, p=.02).

The findings highlight the need for training and development of a protocol for the management of problem gambling among psychiatrists in Nigeria.

#### Introduction

Before the new millennium, betting pools, lotteries, and slots were the most popular form of gambling in Nigeria [1]. However, as gambling opportunities and participation increased around the world in the late 1990s, the gambling landscape began to change in Nigeria [2], requiring the passing of new laws to regulate gambling in Nigeria [3,4]. These new laws paved the way for the privatization of certain gambling subsectors and made most forms of gambling illegal in Nigeria. As in almost every country, the legal age for gambling is 18 years and older [5].

Given the strictness of the law, many Nigerians have turned to online betting and gambling instead of trying their chances with local bookmakers because the penalty for players engaging in unlawful gambling is a fine of up to 5 dollars equivalent, punishment of up to three months in prison, or both the fine plus the prison sentence [3,4]. The result is that post-year 2000, gambling in the nation is divided into 5 categories which are (from the largest to smallest) betting, lottery, promotions, slots, and pools. Making online betting the most popular form of gambling in Nigeria [5,6].

A significant proportion (77%) of Nigerians polled in a survey attested to the high prevalence of betting and gambling in their localities [7]. Furthermore, nearly four in ten Nigerians (36%) gamble regularly, with up to 60 million Nigerians between the ages of 18 and 40 involved in daily sports betting, and they spend an average of \$12 every day on betting platforms [7]. The current size of the market is estimated to be \$100 million annually [7].

While the gambling industry is observed to have a valuable impact on the economy, thanks to employment and taxation, nonetheless, similar to substance abuse, gambling behaviours exist as a continuum of escalating severity which includes adverse consequence that encompasses a source of harm and concern to individuals, families, and society [8]. This is known as problem gambling. Most studies on problem gambling have been conducted in Europe, Asia, North America, and Oceania. The world prevalence was reported to be 0.1-5.8% while the lifetime prevalence is 0.7-6.5% [9]. Few studies from Nigeria reported a prevalence that ranged from 14.2% to 60.0% [10,11].

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Akin, to substance use disorders, the vast majority of problem gamblers also have one or more co-occurring psychiatric disorders such as depression, anxiety, substance abuse, and Personality disorders [12], however, they may go undetected as a result of patients' reluctance to discuss gambling behaviours due to shame, stigma, and guilt, the psychiatrist's lack of understanding and attitudes towards getting involved in the management of the condition as well as the absence of mental health service targeted at problem gambling [8].

Due to these facts, healthcare professionals in mental health settings have a key role in the early identification and treatment of problem gambling. Also, responding to problem gambling in mental health patients is particularly pertinent given that this group frequently experiences marginalization, stigma, isolation, unemployment, low income, and reduced social support [13]. Whilst routine screening of mental health service users could facilitate the early identification and treatment of problem gambling [14], international research reveals that screening for problem gambling rarely takes place in most treatment settings [15,16]. As such, gambling problems often remain undetected and untreated [8,17].

At present most of the mental health services are provided at government hospitals, eight large tertiary institutions (standalone psychiatric hospitals), and the psychiatric departments of university teaching hospitals, all with a total of 4000 beds, with a rate of 0.005 hospitals per 100,000 population and 2.528 beds per 100,000 persons [18,19]. The key challenges to mental health systems in Nigeria are poor funding, reduced access to care, a huge treatment gap, and out-of-pocket payment for services [18].

How psychiatrists respond to problem gambling remains unknown in Nigeria despite large-scale gambling activities by the majority of Nigerians. Given the likely consequence of undetected and untreated problem gambling, there is a need to evaluate the attitudes of psychiatrists in Nigeria toward the need to get involved in the identification, treatment, and referral of patients with problem gambling in their service centers.

#### **Methods and materials**

#### Setting

This was a cross-sectional survey that took place during the 49th Annual General and Scientific Meeting (AGSM) of the Association of Psychiatrists in Nigeria (APN) in Lagos, Nigeria in November 2018. Sixty-eight Psychiatrists (consultants and trainees) from different institutions spread across the country attended. Average attendance at previous APN conferences and meetings was between 50 and 75 members (information from the last 3 years).

#### **Participants**

Respondents were doctors practicing in Nigeria and who either have completed their postgraduate fellowship training in Psychiatry or undergoing the training (i.e., consultant psychiatrists and residents).

#### Instrument

To explore psychiatrists' attitudes toward the need to get involved in the treatment of problem gambling, a self-completion questionnaire was employed. The questionnaire included items adapted from the clinician gambling questionnaire used in a previous study that examined current practices and responses to gambling in a clinician survey [20].

Items on the questionnaire included a demographics section of seven questions of forced choice (age, gender, level of training, type of service center, service location, daily caseload, and previous training on problem gambling). There was a section of three questions on a 5-point Likert scale from "strongly disagree" to "strongly agree" that assessed Psychiatrists' knowledge about gambling and mental health (problem gambling and mental illness commonly occur together, problem gambling can worsen a clients' mental illness and I understand what causes and maintains problem gambling) and another section of two questions on a 5-point Likert scale from never to almost always, that identified psychiatrists' current frequency of asking and screening for problem gambling (how often do you ask clients about their gambling and how often do you screen clients about problem gambling); other items assessed level of comfort or confidence in assessing problem gambling on a Likert scale, for example: 'How confident are you in assessing problem gambling?'

The final section focused on psychiatrists' role legitimacy (i.e., whether or not psychiatrists believe that gambling is within the scope of their role responsibilities). This consists of 12 questions on the Likert scale, with response options ranging from "strongly disagree" to "strongly agree", and it was scored from 5 to 1 respectively. It has a maximum score of 60 and a minimum of 12, with higher scores indicating positive attitudes.

A pilot study was done among a panel of experts which included 10 psychiatrists (3 consultants and 7 trainees) that did not participate in the survey to measure face validity and content validity which was highly acceptable while the internal consistency (Cronbach's alpha= 0.75) was assured. It took approximately 10 minutes to complete the survey.

#### Procedure

The self-completion questionnaire was administered as a hard copy to all psychiatrists that attended the conference. Issues of voluntary participation, freedom to respond independently, confidentiality, and seeking clarification during the assessment were discussed with participants at the beginning of the assessment.

#### Ethical consideration

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation with the Helsinki Declaration of 1975, as revised in 2008. The study protocol was approved by the institutional review board of the participating institution. Informed consent was obtained from all participants.

#### Statistical analysis

SStatistical analysis was carried out with Statistical Package for the Social Sciences (SPSS) version 23.0 for windows [21]. Data were coded, entered into a statistical package, and cleaned. Categorical variables were summarised with frequencies and percentages while continuous variables were summarised with their mean, mode, range, and standard deviation. Analysis was done to determine the proportion of psychiatrists that had received training in gambling addiction, caseloads of patients, and the proportion that were confident and competent in assessing for problem gambling. Independent t-test examined the association of perceived attitudes toward getting involved in the identification and treatment of problem gambling and gender while Analysis of Variance (ANOVA)

procedures examined the association of perceived attitudes toward getting involved in the identification and treatment of problem gambling and other variables such as "gambling and mental illness", "frequency of screening", "assessing patients for gambling problems" and "comfortability and confidence in asking patients about gambling problems". Multiple regression analysis was used to identify independent predictors. P-value was set at  $\leq 0.05$ .

#### Results

Fifty-five (55) psychiatrists participated in the survey as against the sixty-eight (68) that attended the conference. The overall response rate was 80.88%. Their mean age was  $39.22 \pm 6.80$  years with a range of 27-59 years, 29 (52.7%) were males and most psychiatrists (81.80%) reported that they had had no training on problem gambling. The rest of the socio-demographic profile is shown in Table 1. The socio-demographic distribution of the sampled population appears to reflect the true situation of where most psychiatrists work and their service location in Nigeria.

#### Knowledge about gambling and mental illness

More than half of the respondents, 30 (54.60%) agreed that problem gambling and mental illness commonly occur together compared to 12 (21.80%) that were uncertain and 8 (14.50%) that disagreed. In the same vein, 32 (58.20%) agreed

that problem gambling can worsen a client's mental illness. Additionally, 30 (54.60%) agreed that they understood what causes and maintains problem gambling issues as opposed to 11(20.00%) that were uncertain about it. The rest of the results are described in Table 2.

## Knowledge about screening and assessing problem gambling

According to 24 (43.60%) psychiatrists, they rarely asked their clients about problem gambling unlike 4 (7.30%) who asked often. Also, 29 (52.70%) rarely screened their clients for problem gambling whereas only 2 (3.60%) often screened their clients. However, 26 (47.30%) were very comfortable in asking clients about gambling behaviour while 24 (43.60%) were very confident in assessing for problem gambling with clients. The rest are shown in Tables 3 and 4.

Correlation and multiple regression analysis between the scores of perceived attitudes of psychiatrists toward screening, assessment, treatment, and referral of patients with problem gambling and other variables.

The mean score of the perceived attitudes toward getting involved in the identification and management of problem gambling was  $47.40 \pm 5.27$  with a range of 33.00 to 60.00 and it was normally distributed. On the independent t-test, female psychiatrists (M=49.04, SD=4.46) had significantly more

| Table 1. Socio | -demographic | characteristic | s of the | e population |
|----------------|--------------|----------------|----------|--------------|
|                |              |                |          |              |

| Variable                              | Total number (N)=55<br>n, frequency | %, Percentage |
|---------------------------------------|-------------------------------------|---------------|
| Age (years)                           | M=39.22<br>SD=6.80<br>Range=27-59   |               |
| Gender                                |                                     |               |
| Male                                  | 29                                  | 52.7          |
| Female                                | 26                                  | 47.3          |
| Cadre                                 |                                     |               |
| Consultant                            | 39                                  | 70.9          |
| Post-part one resident                | 11                                  | 20            |
| Pre-part one resident                 | 5                                   | 9.1           |
| Service setting                       |                                     |               |
| Tertiary hospital                     | 33                                  | 60            |
| Stand-alone Psychiatry hospital       | 15                                  | 27.3          |
| Secondary hospitals                   | 2                                   | 3.6           |
| Private hospitals                     | 5                                   | 9.1           |
| Location of service setting           |                                     |               |
| Southwest                             | 32                                  | 58.18         |
| Southeast                             | 3                                   | 5.46          |
| South-south                           | 4                                   | 7.28          |
| Northwest                             | 8                                   | 14.56         |
| Northeast                             | 2                                   | 3.6           |
| North-central                         | 6                                   | 10.92         |
| Previous training in problem gambling |                                     |               |
| Yes                                   |                                     |               |
| No                                    | 10                                  | 18.2          |
|                                       | 45                                  | 81.8          |

Table 2. Profile of the knowledge about gambling and mental illness of the population

| Variables   | Strongly agree<br>n (%) | Agree<br>n (%) | Uncertain<br>n (%) | Disagree<br>n (%) | Strongly disagree<br>n (%) |
|---|-------------------------|----------------|--------------------|-------------------|----------------------------|
| Problem gambling and mental illness commonly occur together | 5(9.10%)                | 30(54.60%)     | 12(21.80%)         | 8(14.50%)         | 0(0.00%)                   |
| Problem gambling can worsen a clients' mental illness       | 21(38.20%)              | 32(58.20%)     | 2(3.60%)           | 0(0.00%)          | 0(0.00%)                   |
| Understand what causes/maintains problem gambling issues    | 13(23.60%)              | 30(54.60%)     | 11(20.00%)         | 1(1.80%)          | 0(0.00%)                   |
| n, frequency; %, percentage                                 |                         |                |                    |                   |                            |

Table 3. Profile of the knowledge about screening and assessing problem gambling of the population

| Variables   | Never<br>n (%) | Rarely<br>n (%) | Sometimes n (%) | Often<br>n (%) | Almost always<br>n (%) |
|---|----------------|-----------------|-----------------|----------------|------------------------|
| How often do you ask clients about their gambling | 4(7.30%)       | 24(43.60%)      | 22(40.00%)      | 4(7.30%)       | 1(1.80%)               |
| How often do you screen for prob-<br>lem gambling | 8(14.60%)      | 29(52.70%)      | 16(29.10%)      | 2(3.60%)       | 0(0.00%)               |
| n, frequency; %, percentage                       |                |                 |                 |                |                        |

Table 4. Self-perceived comfortability and confidence in asking about the gambling behaviour of the population

| Variables  | Very<br>n (%) | Moderately n (%) | Mildly<br>n (%) | Not<br>n (%) |
|--|---------------|------------------|-----------------|--------------|
| How comfortable are you asking clients about their gambling behaviours         | 26(47.30%)    | 23(41.80%)       | 6(10.90%)       | 0(0.00%)     |
| How confident are you in assessing for prob-<br>lem gambling with your clients | 24(43.60%)    | 16(29.10%)       | 13(23.70%)      | 2(3.60%)     |
| n, frequency; %, percentage  |               |                  |                 |              |

**Table 5.** Multiple regression analysis for variables predicting attitudes towards screening assessment, treatment, and referral of patients with problem gambling among psychiatrists in Nigeria

| Variable   | В     | SEB  | β     |
|--|-------|------|-------|
| Gender   | 2.39  | 1.02 | .23*  |
| Problem gambling and mental illness commonly occur together            | -1.81 | 0.64 | 29**  |
| Problem gambling can worsen mental illness in clients                  | -1.55 | 0.97 | -0.16 |
| Frequency of asking clients about problem gambling                     | 1.23  | 0.67 | 0.19  |
| How comfortable are you in asking clients about gambling behaviour?    | -1.07 | 0.85 | -0.14 |
| How confident are you in assessing problem gambling with your clients? | -1.67 | 0.66 | 29*   |
| R2   | 56.50 |      |       |
| F  | 10.4  |      |       |

B, unstandardized beta; SEB, standard error of unstandardized beta;  $\beta$ , standardised beta; F, the test of significance \*p<.05 \*\*p<.01

positive attitudes than male psychiatrists (M=45.93, SD=5.57), t (53) = -2.29, p= .03 (95% CI for mean difference -5.83 to -.39).

Gambling and mental illness, frequency of screening, assessing patients for gambling problems, and comfortability and confidence in asking patients about gambling problems were analysed using ANOVA. Perceived attitude towards getting involved in the identification and treatment of problem gambling was significantly different between levels of agreement on problem gambling and mental illness commonly occurred together, F(3, 51) = 8.07, p < .001: Posthoc analyses using Turkey's HSD indicated those that either strongly agreed (M=54.00, SD=4.06) or agreed (M=48.50, SD=4.04) had significantly more positive attitudes compared to those that were either uncertain (M=43.50, SD=4.44) or disagree (M=45.00, SD=6.09), p<.001 (strongly agree vs. uncertain), p=.005(strongly agree vs. disagree) and p=.01(agree vs. uncertain). Also, there was a significant difference between levels of agreement on whether problem gambling can worsen a client's mental illness, F(2, 52) = 4.94, p = .01. Posthoc analyses using Turkey's HSD showed that Psychiatrists that strongly agreed (M=49.48, SD=6.17) had significantly more positive attitudes than the uncertain group (M=39.50, SD=2.12), p=.023.

There was a significant difference in the mean scores of the perceived attitude towards getting involved in the identification and treatment of problem gambling on the five responses of the frequency of asking about problem gambling, F(4, 50) = 3.12, p=0.02, however, post-hoc analyses could not be done because "almost always" response had only one respondent.

When comparing the influence of "how comfortable in asking clients about problem gambling" on attitudes in very comfortable, moderately comfortable, and mildly comfortable. There was significant difference, F(2, 52) = 5.78, p=.005. Post-hoc analyses using Turkey's HSD showed that Psychiatrists that were very comfortable (M=49.65, SD=5.10) had significantly more positive attitudes than the psychiatrists that were either moderately comfortable (M=45.83, SD=4.68) or mildly comfortable (M=43.67, SD=4.37), p=.02 for both. Also, there was a significant difference between levels of confidence in assessing clients for problem gambling, F (3, 51) =7.74, p<.001. Post-hoc analyses using Turkey's HSD showed that the very confident group (M=50.38, SD=4.45)had significantly more positive attitudes than the moderately confident group (M=43.46, SD=4.70), p<.001. There were no significant differences according to previous training on problem gambling, service settings, and understanding the causes of problem gambling.

Multiple regression analysis was used to test if gender, problem gambling was a common co-morbidity to mental illness, problem gambling worsened a client's mental illness, frequency of assessing problem gambling, comfortability, and confidence in assessing problem gambling significantly predicted positive perceived attitudes toward getting involved in the identification and treatment of problem gambling among psychiatrists. The result of the regression indicated that the model explained 56.50% of the variance and it was a significant predictor, F (6, 48) =10.40, p<0.001. Gender significantly predicted positive attitudes ( $\beta$ =.23, p=.02), co-morbid problem gambling, and mental illness ( $\beta$ = -.29, p= .007), as did confidence in problem gambling assessment ( $\beta$ =-.29, p=.02). The rest of the results are summarised in Table 5.

#### **Discussion**

This is a singular and distinct study from Sub-Saharan Africa to have systematically inquired and evaluated the perceived attitudes of psychiatrists toward the need to get involved in the screening, treatment, and referral of patients with problem gambling in their practice. Hence, a direct comparison of findings might be difficult. Reassuringly, the results of the survey showed that psychiatrists had positive attitudes about problem gambling being within the scope of their role responsibilities (mean score of  $47.40\pm5.27$ ) and they recognised the importance of responding to gambling problems. The independent predictors of more positive attitudes were the female gender, the knowledge that problem gambling commonly occurs with mental illness, and confidence in conducting assessments to detect problem gambling.

Compared to male psychiatrists, female psychiatrists had more positive scores on attitudes toward the need to incorporate the identification and treatment of problem gambling into their practice. The plausible reason for this significant difference may be a result of the tendency of female psychiatrists to have less positive attitudes towards gambling behaviour because they consider it as a societal ill or problem that requires attention and treatment whereas, unlike most males that tend to have more positives attitudes towards gambling behaviour because they consider it as a risk taken venture, therefore not a serious public health issue that would require the involvement of mental health service delivery [22,23]. It is an area that needs further studies.

Majority (63.70%) of psychiatrists either strongly agreed or agreed that problem gambling can commonly occur with mental illness. In contrast, 36.30% were either uncertain or disagreed with this view and invariably, this had a significant influence on their attitude toward the need to get involved in the screening, treatment, and referral of patients with problem gambling. The relationship may be reciprocal; firstly, our understanding of a particular topic may shape our application of the knowledge concerning the topic and our expression of it, and secondly, negative attitudes toward a particular subject may hinder us from understanding the subject or prevent us from expressing it. Overall, this recognised a major gap within psychiatry training in Nigeria, especially when only 18.20% of psychiatrists had had training on problem gambling.

Although a large majority (72.80%) was either very or moderately confident in assessing their patients, a significant proportion (27.20%) reported low (mild/not) confidence in their ability to detect problem gambling which had a significant difference in their attitudes towards the need to add screening, treatment, and referral of patients with problem gambling to a range of services that they offer. This is also reflected in the irregularity in the frequency with which psychiatrists screen for problem gambling as demonstrated in this study where 50.90% of psychiatrists either never or rarely ask their patients about gambling and 67.30% either never or rarely screen their patients for problem gambling.

This is of concern given previous studies have concluded that psychiatrists have a significant role in the identification and treatment of problem gambling. Since psychiatrists are already highly skilled in discussing sensitive issues in stigmatized populations (e.g., suicidal thoughts, family violence, etc.), they are ideally placed to explore their patient's gambling behavior [24]. The lack of confidence and the reduced frequency of assessing patients with problem gambling likely reflects the

low rates of previous training in problem gambling. This is not surprising given that the assessment and management of problem gambling are neither routinely taught within undergraduate or postgraduate psychiatry training programs, nor required as a competency within mental health settings. Moreover, inadequate access to training and education resources has been identified as a key factor underlying low confidence and frequency in screening patients or problem gambling [24].

In moving forward, it is important to address the lack of problem gambling training within the psychiatry undergraduate training and postgraduate specialization program in Nigeria. Both undergraduate and postgraduate programs should include compulsory training on the relationship between mental health and problem gambling and the protocol for the screening, treatment, and referral of patients with problem gambling. There should also be a pathway for referral of patients with problem gambling from mental health treatment service settings that are unable to offer such treatment.

A few limitations should be considered when interpreting the findings. This study utilized a self-report measure and incorporated a limited sample of volunteer psychiatrists making it impossible to eliminate social desirability effects. Notwithstanding, the response rate of 80.88% among the psychiatrists that attended the conference was high. However, the number of psychiatrists that attended the conference is about a third of psychiatrists presently residing and practicing in Nigeria. Replication with a wider sample of psychiatrists is advantageous to draw more definitive conclusions. Despite these limitations, it is very important to note that this is the first study from Nigeria, and West Africa to assess the attitudes of psychiatrists towards the need to incorporate the identification and treatment of problem gambling into their practice, and the respondents were from diverse geographical locations, service settings, age groups and levels of seniority, to ensure heterogeneity and true representation of the population studied.

#### Conclusion

Although there is a large gap in problem gambling training among psychiatrists in Nigeria, they still showed positive attitudes about problem gambling being within the scope of their role responsibilities and they recognised the importance of responding to gambling problems in the face of an increased problem gambling rate. Furthermore, given that the basic infrastructure and staff they need for the training and screening for problem gambling already exist in most mental health service settings. We, therefore, call on psychiatrists to do more to help their patients with gambling problems.

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#### Author's contribution

All authors participated in the design of the study, data collection, data entry, data analysis, drafting of the manuscript, and final approval of the manuscript. Individual authors have studied the manuscript in the form submitted, agreed to be cited as a co-author, and have accepted the order of authorship.

#### Conflict of interests

The authors declare that they have no financial or personal relationship that may have inappropriately influenced them in writing this article.

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