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Interlinking alcohol intake, mental stress, psychotic experiences and job performance of higher institutions' graduates: A structural equation modelling

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Abstract:

BACKGROUND: Graduates' job performance has become a matter that needs urgent attention. This is because many stakeholders are increasingly becoming interested in understanding the extent schools are able to produce output that meets the yearnings of society. Along these lines, we examined the contributions of alcohol intake to the job performance of higher education graduates while treating mental stress and psychotic experiences as mediators in the nexus.

MATERIALS AND METHODS: The study's population comprised all the graduates of higher education institutions in Nigeria between 2015 and 2020. Data were collected from a virtual cross-section of 3,862 graduates who self-reported to have taken alcohol in the past. These participants responded to an electronic questionnaire that was mailed to them. The scale content validity for clarity and relevance were 0.90 and 0.88, respectively, while the Cronbach alpha reliability estimate of the instrument is 0.86.

RESULTS: Amongst many others, key findings indicate that alcohol intake, mental stress and psychotic experiences jointly made a significant negative contribution to the overall job performance of graduates ($R^2 = 0.256$, 95% confidence interval (CI) [0.23, 0.28], $P = 0.00$). Mental stress ($B = -0.09$, $\beta = -0.14$, $z = -4.45$, 95%CI [−0.24, −0.05], $P = 0.00$) and psychotic experiences ($B = -0.26$, $\beta = -0.43$, z = −8.07, 95%CI [−0.68, −0.16], $P = 0.01$) have significant negative contributions to graduates' job performance, respectively. Alcohol intake and mental stress jointly predict the psychotic experiences of graduates ($B = -0.26$, $\beta = -0.43$, $z = -8.07$, 95%CI [−0.68, −0.16], $P = 0.01$). Alcohol intake has a positive contribution to the mental stress of graduates ($R^2 = 0.797$, 95%CI [0.77, 0.825], $P = 0.01$). Mental stress and psychotic experiences jointly mediated the relationship between alcohol intake and graduates' job performance.

CONCLUSION: It was concluded that high intake of alcohol and high levels of mental stress and psychotic experiences significantly reduce graduates' job performance generally and in specific aspects. Alcohol intake can increase graduates' job performance to a small extent depending on the amount consumed.

Keywords:

Alcohol, experiences, job performance, mental stress, psychosis

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Introduction

School performance is traditionally evaluated using grading, after examinations, presentations, submission of assignments and participation in class activities and debates.[1-3] Although examinations or continuous assessment scores are reasonable measures of students' performance,[4] there is no universal consensus on the ideal method of testing or on whether components of information processing, such as abilities or conceptual understanding, are more significant.[4,5] Students should, therefore, strive to achieve acceptable performances in school and afterwards. However, while some graduates are high achievers, available evidence suggests that their out-of-school performance is poor at the workplace.[6] Consequently, there seems to be a disparity between students' perceived school grades and their ability to perform practical tasks in their areas of expertise. This tends to raise several questions among scholars on the quality of the Nigerian educational system in general[7,8] and the quality of assessment practices in particular.

The gap between school and work performance has been attributed to many factors such as graduates being unemployable, half-baked, full of too much theory and little practical substance, as well as corrupt academic practices in higher education.[9,10] Other factors include poor school funding, high students' enrolment, parents' socioeconomic status, nutritional status, residential area, peer influence, school management practices, and assessment practices.[5,11-13] For improvement, it has been recommended that graduates' employment be based on their ability to perform assigned practical tasks and not just on school grades.[4,14,15] Furthermore, higher education graduates' academic success should be evaluated in terms of their level of expertise, abilities, competencies and their level of productivity in the world of work and not merely by academic grades, which could be misleading.[1] The present study draws from these problems and seeks to provide further insights on other possible factors that could contribute to the out-of-school performance of higher education graduates. These factors include the intake of alcohol, mental stress and psychotic experiences. These elements were considered because many physical, behavioural and psychological changes occur in late adolescence and early adulthood due to responsibilities and expectations.[16] These alterations in physiology, sociology and culture result from separating from one's family and home, as well as the impact of social groupings.[17]

From the preceding, many individuals start indulging in different behaviors (such as drinking) to cope with social pressure. However, there is ample evidence in the literature that consuming alcohol is associated with different psychological outcomes. For instance, a previous study has shown that even after a person quits drinking, the effects of stress may still be felt.[18] Research has also shown that high levels of stress were linked to increased alcohol consumption in both men and women.[19,20] This is because higher levels of cortisol and adrenocorticotropic hormone are released, and this hormonal balance is thrown off, affecting how the body perceives stress and reacts to it.[21-23] This implies that someone who has been a heavy drinker for a long time is more likely to feel anxious in stressful situations than someone who has never consumed alcohol or has just drunk lightly.

Consistent use of alcohol or other substances may cause psychosis, and this kind of psychosis is known as substance-induced psychosis. If an individual has consumed too much drink and is experiencing symptoms like hallucinations and delusions, they may have developed alcohol-related psychosis.[24] As an additional example of an alcohol-induced psychotic disease, alcohol hallucinosis and alcoholic paranoia only occur in chronic alcoholics who have been drinking for a long time and in large quantities.[25] Even though alcohol-induced psychosis is a well-known clinical disease, little is understood about its underlying mechanisms. According to previous studies, alcoholism has been linked to posttraumatic stress disorder (PTSD) symptoms and psychotic events.[26,27] This shows that trauma and PTSD are commonly co-occurring with problematic alcohol consumption in various samples. Alcohol use, on the other hand, increases the risk of having a psychotic episode.

Studies on alcohol intake and performance have documented different findings. For instance, a study found substantial variations in students' academic performance who consume alcohol versus others who do not.[5] Hence, alcohol intake has a significant negative influence on academic performance.[28] Recent analyses using enhanced prediction approaches have shown that drinking has marginal consequences on educational achievement.[28,29] Abusive ingestion of addictive factors, such as alcohol and narcotics, is strongly related to a propensity for dangerous behaviour, mental disturbances and reduced performance.[30] Studies have clarified that, while exceptions exist, high consumption of beverages such as local beer cocktails contributes to students' poor performance in academic activities.[29]

Stressful incidents in life raise the danger of insanity, and personal psychological interactions associated with everyday practice contribute to changes in psychotic severity moment by moment.[31] Likewise, the findings of another analysis showed a strong association between perceived stress and psychotic experiences even after adjusting for depression.[32] Very few or no

Nigerian-based studies exist that used a representative sample to assess the linkages between psychotic experiences and mental stress. Furthermore, research confirmed that psychotic episodes are particularly associated with depression experiences and emotional distress, diminished functioning and quality of life in the medium-term caregiver young people.[33] The research of Akram *et al*.[34] revealed a substantial correlation between psychotic experiences with the perceived severity of a nightmare and its effects and the resulting awakenings.

Studies on mental stress have revealed several activities that can affect the performance of students, such as poor time management, an unfavourable financial condition, a lack of sleep, excessive social activities, and, for some, the responsibility and obligations for a spouse and children.[35,36] The body suffers from several harmful consequences of high levels of mental stress, both short and long term.[37,38] A study showed that stress decreases students' ability to learn in class and causes a lack of attention, resulting in subpar work and low academic grades.[39] Similarly, many studies have proven that mental stress is negatively correlated with students' academic achievement, with higher levels of stress leading to poorer academic performance levels.[40-45] A study has identified a link between stress and academic success; some contradict conventional findings, arguing that students with high and moderate stress levels did better than those with lower stress levels.[36] According to these findings, the connection between mental stress and academic performance is still up for question and requires more excellent investigation and proof.

Studies on psychotic experiences have revealed its prevalence in children and other accompanying mental health issues and psychopathology.[46,47] A psychosis continuum is backed up by research showing that psychotic episodes and psychotic diseases share genetic, cognitive, and environmental risk factors.[48] The likelihood of psychotic and non-psychotic illnesses and negative consequences, including suicidality and a worse quality of life, has also been studied.[49-51] Psychotic experiences have been linked to worse academic success in adolescents and adults.[52-54] Another study has proven that children with psychotic experiences had worse educational results than their non-affected counterparts.[55] The review of related literature revealed inconclusive debates on the effect of the predictors on the mediators and criterion variables of this study. This creates a gap, in addition to the scarcity of context-based studies addressing these linkages in Nigeria.

For this reason, the present study assessed alcohol intake, mental stress, psychotic experiences and performance of higher education graduates using a path analytic approach. This study is relevant because it adopted a comprehensive approach to test for the associations, including the direct, indirect and total effects of the variables under investigation. Past studies have often associated these variables with the performance of higher education students in schools. However, the present study contributes to the existing literature by examining the effects of these variables on the out-of-school performance of higher education graduates. It is essential to understand the behaviour and psychology of higher education graduates since they constitute most of the human capacity needed for an effective labour force of any nation. Through this study, higher education graduates could become aware of the consequences of alcohol intake, mental stress and psychotic experiences on their performance. Students in higher education institutions could also derive lessons from graduates to redefine and adjust their activities towards following/avoiding the steps/mistakes of graduates.

Along these lines, this study investigated the predictive composite contribution of alcohol intake, mental stress, and psychotic experiences to the job performance of graduates generally and in specific areas (such as teamwork, communication competence, customer service and job functions). We also analysed the prediction of alcohol intake, mental stress and psychotic experiences on graduates' job performance in specific areas. Furthermore, we assessed the relative and composite contribution of alcohol intake and mental stress to psychotic experiences of higher institution graduates. Lastly, the study assessed the extent to which alcohol intake contributes to the mental stress of tertiary institutions' graduates.

Materials and Methods

Study design and setting

This study adopted the cross-sectional descriptive survey research design. This design was considered the most appropriate to enable the researchers to streamline the focus to subjects with self-reported cases of alcohol use, mental stress and psychotic experiences. The setting of this study is Nigeria. Nigeria is the most populated African country located in the western region of the Sahara Desert. The country is blessed with mineral resources and other economic potentials. However, most graduates in the country are unemployed with some being unemployable due to a lack of skills. As a result, most employers complain about the poor discharge of service by some of these graduates. This history of poor job performance gave rise to the current study in this setting.

Study participants and sampling

The study population comprised all the graduates of higher education institutions in Nigeria who graduated between 2015 and 2020. Data were collected

from an online cross-section of 3,862 graduates who self-reported to have taken alcohol in the past. These respondents responded to an electronic questionnaire that was mailed to them after indicating their interest to participate voluntarily by filling out an interest form earlier forwarded to them. The researchers use a two-step approach to ensure that (1) the instrument gets to the targeted respondents and (2) due consent of the participants was obtained.

Data collection tool and technique

The questionnaire which was used for data collection was composed of five sections. Section A was designed to collect respondents' personal information such as age, sex, religion, educational qualification, occupation and year of bachelor's degree graduation. Section B [alcohol intake scale (AIS)] was designed with 15 items adapted and modified from the Michigan Alcohol Screening Test (MAST) initially designed by the National Council on Alcoholism and Drug Dependence of the San Fernando Valley. The AIS screens for alcohol issues in the general population with a 98% accuracy rate by asking questions about the patients' self-assessment of alcohol use. The scoring of the items on the AIS was done dichotomously (Yes = 1; No = 2) as in the original version. A person's alcohol intake level is determined by adding the scores across 15 items.

Section C [mental stress scale (MSS)] of the e-survey comprised ten items assessing mental stress adopted from the perceived stress scale (PSS) developed and validated by some scholars.[56] The items of the MSS were on the original (PSS) six-point Likert scale, with response options ranging from 0 to 5. A total mental stress score is obtained by adding all the scores across the ten items. Section D [psychotic experiences scale (PES)] of the e-survey comprised ten modified items adapted from the questionnaire for psychotic experiences. The PES items were also placed on a six-point Likert scale with the same response option as the MSS. Section E [graduates' job performance scale (GJPS)] comprises 25 items measuring graduates' job performance. The researchers developed these items using experience and information from a literature review. The 25 items in GJPS of the e-survey were clustered into four domains. These domains include teamwork (with six items), communication competence (with seven items), customer service (with five items) and job functions (with seven items). All the items in Section E of the e-survey were placed on a six-point linear scale ranging from 0 to 5.

After adopting and raising the items of the e-survey, a paper version of the instrument was created and submitted to nine experts in three public universities in South–South Nigeria. The instrument was submitted in a suite containing another document specifying the main and specific objectives, research questions and hypotheses of the study to enable them to understand the research direction. Three of the experts were in health education, three were in psychology and three were in the field of measurement and evaluation. Experts in these three fields were considered because the researchers thought they possessed the relevant field-specific knowledge to examine the items. The experts of health education were to primarily focus on Sections B (AIS) and C (MSS), the psychologists on Section D (PES), while the measurement experts were to focus on Section E (GJPS). The primary responsibility of all the experts was to rate the extent to which items were clear and relevant in assessing the variables in the domains under focus.

To determine the instrument's Item Content Validity Index (I-CVI) and Scale Content Validity Index (S-CVI), we used expert reviews [see Table 1]. The second draft of the instrument was subjected to a focus group discussion with eight university graduates who were not meant to be research participants. Every item was given a qualitative evaluation by the graduates to see if it was acceptable, adequate and whether there were any possible omissions. The focus group's suggestions were incorporated into the final draft of the instrument. The final instrument draft was trial tested on 50 non-sample graduates to determine its degree of internal consistency. Cronbach's alpha technique of internal consistency was used to conduct the reliability test [see Table 1].

We used a two-step approach in collecting the data for this study. In the first step, we sent an email to the respondents containing information about the research, its objectives and why they were enlisted to participate. After obtaining written informed consent to participate, a follow-up email was sent with a link to the electronic survey designed using Google Forms. The data collection exercise lasted 18 months, with a total number of 3,862 individual responses received. Collected data were cleaned, wrangled and transformed (where applicable) in preparation for analysis. Using IBM Amos graphic software, path analysis (structural equation modelling) was used for data analysis. The result of the analysis is presented in the following section.

Model specifications

The linear models of this study are specified as follows:

$$MS = \beta_0 + \beta_{AIMS}X + \varepsilon_{MS} \quad (1)$$

$$PE = \beta_0 + \beta_{AIPE}AI + \beta_{MSPE}MS + \varepsilon_{PE} \quad (2)$$

$$JP = \beta_0 + \beta_{AIJP}AI + \beta_{MSJP}MS + \beta_{PEJP}PE + \varepsilon_{JP} \quad (3)$$

$$T = \beta_0 + \beta_{AIT}AI + \beta_{MST}MS + \beta_{PET}PE + \varepsilon_{T} \quad (4)$$

Table 1: Quantitative content validity indices and Cronbach reliability estimations of the data gathering device

Instrument	No. of items	Range of I-CVI C	Range of I-CVI R	S-CVI C/AVE	S-CVI R/AVE	α
AIS	15	0.89-1.00	0.94-1.00	0.90	0.92	0.87
MSS	10	0.78-1.00	0.85-1.00	0.88	0.89	0.90
PES	10	0.93-1.00	0.82-1.00	0.95	0.87	0.79
GJPS	25	0.84-1.00	0.79-1.00	0.87	0.85	0.88
Instrument total	60	0.86-1.00	0.85-1.00	0.90	0.88	0.86

Abbreviations: I-CVI C=Item Content Validity Index for Clarity, I-CVI R=Item Content Validity Index for Relevance, S-CVI C=Scale Content Validity Index for Clarity, S-CVI R=Scale Content Validity Index for Relevance, α=Cronbach alpha reliability estimate

$$CC = \beta_0 + \beta_{AICC}AI + \beta_{MSCC}MS + \beta_{PECC}PE + \varepsilon_{CC} \quad (5)$$

$$CS = \beta_0 + \beta_{AICS}AI + \beta_{MSCS}MS + \beta_{PECS}PE + \varepsilon_{CS} \quad (6)$$

$$JF = \beta_0 + \beta_{AIJF}AI + \beta_{MSJF}MS + \beta_{PEJF}PE + \varepsilon_{JF} \quad (7)$$

where MS = mental stress (M_1), PE = psychotic experiences (M_2), JP = job performance of graduates (Y), T = teamwork (Y_1), CC = communication competence (Y_2), CS = customer service (Y_3), JF = job function (Y_4), AI = alcohol intake (X).

Results

Composite contribution of alcohol intake, mental stress and psychotic experiences to graduates' job performance

The result of the analysis depicted in Figure 1 shows that 25.6% of the total variance in the job performance of higher education graduates is attributable to the composite contributions of alcohol intake, mental stress and psychotic experiences ($R^2 = 0.256$, 95%CI [0.23, 0.28], $P < 0.05$). This implies that 74.4% of the unaccounted portion of the variance is attributable to other extraneous variables not enlisted in the model. In specific terms, the result of the analysis revealed that alcohol intake, mental stress and psychotic experiences jointly contributes to 26.2, 25.8, 26.7 and 26.7% of the total variance in graduates' job performance in terms of teamwork (R^2 = 0.262, 95%CI [0.24, 0.28], $P < 0.05$), communication competence ($R^2 = 0.258$, 95%CI [0.24, 0.28], $P < 0.05$), customer service ($R^2 = 0.267$, 95%CI [0.24, 0.29], $P < 0.05$) and job functions ($R^2 = 0.267$, 95%CI [0.24, 0.29], $P < 0.05$), respectively. This suggests that the unexplained variance in graduates' job performance in terms of teamwork (73.8%), communication competence (74.2%), customer service (73.3%) and job functions (73.3%) can be attributed to other predictors not included in the analysis.

Alcohol intake and graduates' job performance

Table 2 shows that alcohol intake has a positive but non-significant effect on graduates' job performance generally. In specific terms, Table 2 shows that the contribution of alcohol intake is not significantly negative to teamwork, communication competence and job functions of graduates respectively. It was, however, found

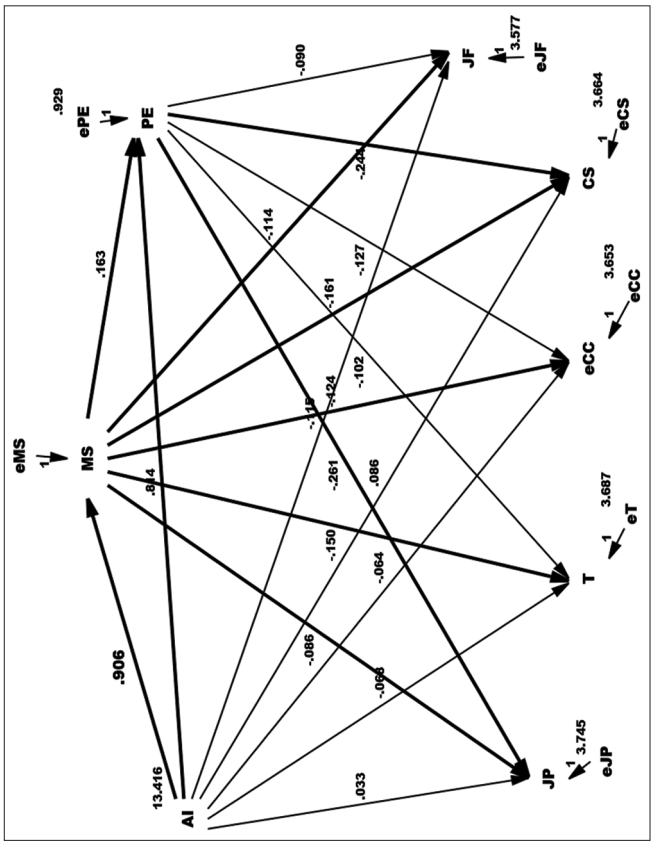

Figure 1: A structural equation model showing the contributions of alcohol intake, mental stress and psychotic experiences to tertiary institutions' graduates' job performance. *Bolded paths are significant

that alcohol intake contributes non-significantly positive to the customer service of graduates. The result further indicates that other things being equal, a 1% increase in alcohol intake is associated with a 0.054% increase in the overall job performance of tertiary institutions' graduates. The result also suggests that if we hold other factors constant, a 1% increase in the intake of alcohol is associated with a 0.111, 0.106 and 0.191% decrease in the teamwork, communication competence and job functions of tertiary institutions' graduates. However, we proved in this study that if other things remain the same, a 1% increase in the intake of alcohol will cause a 0.140% increase in the customer service of tertiary institutions' graduates.

Mental stress and graduates' job performance

Table 2 reveals that mental stress has a significant

Table 2: Relative contributions of alcohol intake, mental stress and psychotic experiences to the job performance of tertiary institutions' graduate

Paths			*B*	*Β*	SE	*z*	95% CI (LL, UL)	*P*
MS	<---	AI	0.91	0.89	0.01	122.94	0.88, 0.91	0.01
PE	<---	AI	0.81	0.81	0.01	86.71	0.75, 0.88	0.00
JP	<---	AI	0.03	0.05	0.03	1.01	−0.19, 0.34	0.63
T	<---	AI	−0.07	−0.11	0.03	−2.10	−0.36, 0.20	0.47
CC	<---	AI	−0.06	−0.11	0.03	−2.01	−0.39, 0.19	0.48
CS	<---	AI	0.09	0.14	0.03	2.67	−0.13, 0.37	0.30
JF	<---	AI	−0.12	−0.19	0.03	−3.64	−0.43, 0.06	0.12
PE	<---	MS	0.16	0.17	0.01	17.67	0.11, 0.23	0.00
JP	<---	MS	−0.09	−0.14	0.02	−4.45	−0.24, −0.05	0.00
T	<---	MS	−0.15	−0.25	0.02	−7.81	−0.34, −0.17	0.00
CC	<---	MS	−0.12	−0.21	0.02	−6.51	−0.29, −0.11	0.01
CS	<---	MS	−0.16	−0.27	0.02	−8.43	−0.35, −0.18	0.00
JF	<---	MS	−0.11	−0.19	0.02	−6.07	−0.25, −0.12	0.01
JP	<---	PE	−0.26	−0.43	0.03	−8.07	−0.68, −0.16	0.01
T	<---	PE	−0.10	−0.17	0.03	−3.19	−0.46, 0.06	0.17
CC	<---	PE	−0.13	−0.21	0.03	−3.98	−0.46, 0.15	0.21
CS	<---	PE	−0.24	−0.40	0.03	−7.62	−0.62, −0.13	0.01
JF	<---	PE	−0.09	−0.15	0.03	−2.84	−0.40, 0.09	0.24

Abbreviations: MS=Mental stress, PE=Psychotic experiences, JP=Job performance of graduates, T=Teamwork, CC=Communication competence, CS=Customer service, JF=Job function, AI=Alcohol intake

negative contribution to graduates' job performance generally and specifically in terms of teamwork, communication competence, customer service and job functions, respectively. We predicted that a 1% increase in the mental stress of tertiary institutions' graduates is associated with a 0.142% decrease in their job performance generally. Further predictions revealed that a 1% increase in mental stress will drop the teamwork, communication competence, customer service and job functions of tertiary institution graduates by 0.249, 0.208, 0.268 and 0.193% accordingly.

Psychotic experiences and graduates' job performance

Our analysis in Table 2 shows that psychotic experiences have a significant negative predictive contribution to the overall job performance of graduates and in terms of customer service. However, in terms of teamwork, communication competence and job functions of graduates, we recorded a negative but non-significant contribution of psychotic experiences. The predictive implications of these results are that when the psychotic experiences of tertiary institutions' graduates increase by 1%, other things being equal, their overall job performance will drop by 0.426% and the quality of their customer service will decline by 0.399%. Furthermore, this study predicted also that a 1% increase in the psychotic experiences of tertiary institutions' graduates is connected with a 0.168, 0.210 and 0.149% decrease in their teamwork, communication competence and job functions, other things being equal.

Relative and composite contribution of alcohol intake and mental stress to psychotic experiences of graduates

Figure 1 shows that alcohol intake and mental stress are jointly responsible for 93.1% of the total variation in the psychotic experiences of tertiary institutions' graduates (R^2 = 0.931, 95%CI [0.91, 0.95], $P < 0.05$). This implies that we can hold other predictive factors not included in the model for the remaining 6.9% of the unexplained portion of the variance. In a relative sense, the result in Table 2 indicates a significant positive contribution of alcohol intake and mental stress to the psychotic experiences of tertiary institutions' graduates. We further predicted that a 1% increase in the intake of alcohol by tertiary institutions' graduates would lead to a 0.814% increase in their psychotic experiences, other things being equal. Furthermore, if we hold other factors constant, the analysis also forecasted that a 1% increase in the mental stress of tertiary institutions' graduates would lead to a 0.166% increase in their psychotic experiences.

Alcohol intake and the mental stress of graduates

Figure 1 shows that alcohol intake is accountable for 79.7% of the variation in the mental stress of tertiary institutions graduates (R^2 = 0.797, 95%CI [0.77, 0.825], $P < 0.05$). This result suggests that the remaining 20.3% of the unexplained proportion of the variance is attributable to other extraneous variables not included in the model. The result in Table 2 further explains that a 1% increase in the intake of alcohol will lead to a 0.892% increase in the mental stress of tertiary institution graduates, other things being equal.

Discussion of findings

This study discovered that alcohol intake, mental stress and psychotic experiences jointly made a significant negative contribution to the overall job performance of tertiary institutions' graduates. This finding implies that a high intake of alcohol and high levels of mental stress and psychotic experiences significantly reduce tertiary institutions' graduates' job performance generally and in terms of teamwork, communication competence, customer service and job functions. This finding is not surprising since excessive intake of alcohol has been proven in past studies to have a negative consequence on consumers.[57] On the other hand, mental stress destabilises individuals' minds, reasoning and thinking, affecting their functioning overall. On psychotic experiences, the current study validates the evidence earlier provided by some studies that psychotic experiences have been linked to worse scholastic attainment in both adolescents and adults.[52,54] Considering the negative contributions already known about alcohol intake, mental stress and psychotic experiences to the wellbeing of man, jointly possessing these attributes at the same time could be suicidal for an individual.

The second finding of this study proves that alcohol intake has a positive but non-significant effect on graduates' job performance generally and in terms of customer service. This finding is quite surprising because we had anticipated a significant negative contribution, owing to the position currently held by a vast majority of the literature. However, an explanation for this result is that the respondents who reported having taken alcohol may not have consumed excessive quantities. We contend in the current study that what constitutes excessive intake of alcohol for a person may be mild for another and vice versa. This result agrees with Onyebuchukwu[5] that students indulge in alcohol intake to help them deal with negative academic pressures and make them seem mature. In specific terms, this study proves that the contribution of alcohol intake is not significantly negative to teamwork, communication competence and job functions of graduates, respectively. This finding implies that even though alcohol intake contributes negatively to graduates' disposition, it does not significantly reduce their teamwork, communication ability and job functions. Although unanticipated, this finding is not surprising because the graduates do not consume heavy quantities of alcohol or do not drink beyond their carrying capacity. It can be argued that drinking alcohol at mild levels may not hinder someone from performing roles effectively, but binge drinking could. This aligns with a previous study that abusive ingestion of addictive factors, such as alcohol and narcotics, is strongly related to reduced performance.[30,58]

The third significant finding of this study reveals that mental stress has a significant negative predictive contribution to graduates' job performance generally and specifically in terms of teamwork, communication competence, customer service and job functions. This result was expected because several studies have shown deleterious consequences on the body of having high levels of mental stress, both in the short term and long term.[37,38] The adverse finding implies that an increase in the mental stress of tertiary institutions' graduates decreases their chances of optimal job performance and vice versa.

The fourth finding also revealed that psychotic experiences significantly but negatively predict graduates' job performance generally and in terms of customer service. However, in terms of teamwork, communication competence and job functions of graduates, we recorded a negative but non-significant contribution of psychotic experiences. This result implies that increments in psychotic experiences lead to an overall job performance decline. This is because the psychotic experiences of individuals have been proven to be connected to mental stress.[46,47] This means that people with mental stress are more likely to witness psychotic experiences. In line with the result of the current study, previous evidence in the literature tends to agree that individuals with psychotic experiences have a greater chance of developing psychotic and non-psychotic illnesses, as well as negative consequences, including suicidality and a worse quality of life.[49-51]

This study documented a significant joint effect of alcohol intake and mental stress on the psychotic experiences of tertiary institutions' graduates through its fifth finding. This result implies that the joint presence of alcohol intake and mental stress can promote psychotic experiences among graduates. This study also established a significant positive contribution of alcohol intake and mental stress to the psychotic experiences of tertiary institutions' graduates. These results align with previous studies that individuals with first-episode psychosis have a significant frequency of alcoholism and drug abuse problems.[59,60] In terms of mental stress, the current study provides support to some previous studies that for the general population, there is a clear correlation between (subclinical) psychotic experiences and regular exposure to critical life events that produce stress.[61-63] While it is true that exposure to life events may cause mental stress, the present research may have yielded contrasting evidence due to the nature of the respondents and the areas where both studies were conducted.

The sixth finding of this study reveals that alcohol intake is accountable for 79.7% of the variation in the mental stress of tertiary institutions graduates. The result further indicates a significant positive contribution of alcohol intake to the mental stress of tertiary institutions' graduates. This finding implies that high consumption of alcohol among graduates is more likely to be associated with high levels of mental stress. It has also been shown that those under much stress drink more.[19,20] Drinking heavily for a long time changes the brain's chemistry, resetting what is considered 'normal'. Higher cortisol levels and adrenocorticotropic hormone are released, and this hormonal balance is thrown off, affecting how the body perceives stress and reacts to the stimulus.[64,65]

Limitations and recommendation

This study faces a few limitations that affect the extent to which results may be generalised. First, the study relied on respondents' self-report of alcohol intake, mental stress and psychotic experiences. Thus, the validity of the results of this study is based on how many respondents were honest with their responses. An experimental study would have been more helpful in addressing the methodological weakness of this study. Second, the exclusion of students who graduated before 2015 weakens the extent to which the result of this study can only be extended to those who graduated earlier. It

is, therefore, suggested that future studies expand their inclusion or eligibility criteria to capture graduates of at least the past two decades. By focusing on Nigerian graduates, the result of this study may not give an accurate picture of things in other African or developing nations. Thus, much research in this area is plausible to enrich the current study in other contexts.

Conclusion

This study assessed a series of linkages among variables such as alcohol intake, mental stress, psychotic experiences and graduates' job performance. The findings of this study provided evidence that high intake of alcohol and high levels of mental stress and psychotic experiences significantly reduce graduates' job performance generally and in specific aspects. It has also been clarified by the result of this study that alcohol intake can increase graduates' job performance to a small extent, depending on the amount consumed. Furthermore, alcohol intake can reduce the degree of graduates' teamwork, communication competence and job functions as they perform assigned duties, albeit to a negligible extent. Mental stress and psychotic experiences, as separate predictors, play a negative role in the job performance of graduates. This study implies that graduates must guard against certain behaviours and lifestyles to perform optimally in their jobs. Moreso, activities likely to induce stress and promote psychosis must always be avoided. Only moderate levels of alcohol should be consumed; otherwise, the intake of alcohol should be avoided at the workplace. This study has contributed to the literature by being the first to link predictors such as alcohol consumption, mental stress and psychotic experiences to graduates' job performance wholly and across indicators of teamwork, communication competence, customer service, and job functions.

Ethical consideration

Ethical clearance was waived for this study as per the National Health Research Ethics Committee of Nigeria guidelines (NHREC) which exempts survey-based studies due to no associated risk in participation (see http://www.nhrec.net/nhrec/NCHRE_Aug%2007.pdf). A checkbox in Section A (Cover letter) of the electronic questionnaire was used to gain respondents' written informed consent during data collection. All the participants ticked the box confirming that they were aware of the research and were ready to take part. Data obtained was de-identified and anonymized in accordance with Safe Harbour standards, which respondents were notified of in the cover letter. All data collected were aggregated with all personal information deleted to ensure confidentiality and integrity. Using a personal computer with a strong password, anti-virus and firewall, the lead investigator and the researchers were the only people with access to the data acquired. Lastly, responders were notified in the cover letter that their responses would be analysed and the results published as a journal paper such that their data would be removed and the hard drive destroyed.

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Conflicts of interest

There are no conflicts of interest.

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