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VALIDATION OF BURNOUT QUESTIONNAIRE AMONG AUTOMOBILE APPRENTICE ARTISANS IN OSUN STATE NIGERIA

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ABSTRACT: *A cross-sectional survey design was adopted to validate the Burnout Questionnaire (BQ) on Nigerian automobile apprentice artisan. A multistage sampling technique was used to purposively select 150 (mean age ± SD 21.4±3.6). A total of 150 male participants were drawn from selected communities in Ede metropolis Osun State, Southwestern Nigeria. The participants responded to the Burnout Questionnaire, and the Mashlash Burnout Inventory (MBI). Internal consistency of Burnout Questionnaire showed a Cronbach's alpha coefficient of .83, a Spearman-Brown coefficient of .87 and a Guttman Split-Half coefficient of .74. A significant positive correlation was observed between Burnout Questionnaire and MBI, revealing a correlation coefficient validity score of (r = .690, p= .001). The Burnout Question has acceptable psychometric properties for the Nigerian population. The observed group based norm was ≥ 48.16. Based on the findings, the 17-item of Burnout Questionnaire showed good internal reliability and a valid measure of symptoms of burnout. The authors concluded that Burnout Questionnaire has acceptable psychometric properties for the Nigerian population as it fits well to the Nigerian socio-cultural setting as a measure of burnout symptoms.*

KEYWORDS: Validation, burnout questionnaire, apprentice artisans, Nigeria

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INTRODUCTION

Burnout syndrome has become one of the most common problems in recent years, the most commonly mentioned mental health issue in today's world societies. People are under increasing pressure in their daily lives as the world faces enormous socioeconomic problems everyday life, notably at work. Work-related stress affects people in many industries and sectors across the globe. Burnout syndrome is a term used to describe a state of exhaustion. (Ahola, Väänänen, Koskinen, Kouvonen, & Shirom, 2010; Kant et al., 2003; Langelaan, Bakker, Schaufeli, van Rhenen, & van Doornen, 2006).

Burnout is defined as a state of physical, emotional, and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding (Schaufeli & Greenglass, 2001). Burnout has become a synonym for psychosomatic, psychological symptoms and social consequences of a long-lasting workload exceeding an individual's capacity (Hillert, 2008). Some studies report burnout prevalence rates of up to 69% in a given population, for example, approximately 30% in teachers (Rudow, 1999), 31% in medical students (Santen, Holt, Kemp, & Hemphill, 2010), and between 44% and 68.6% in medical oncologists (Blanchard et al., 2010; Glasberg et al., 2007). Peterson *et al.* (2008) carried out a cross-sectional study investigating how burnout relates to self-reported physical and mental health. Using a sample of Swedish County Council employees, they found that depression, anxiety, sleep disturbance, memory impairment, and neck and back pain were much higher in burnout and exhausted groups than disengaged and non-burnout groups. Employees with burnout had the most symptoms compared with those who experienced only exhaustion, disengagement from work, or no burnout. The piece highlighted the importance of actions that may be taken to diagnose burnout.

Despite the term's cultural relevance and broad use in everyday life, academics and practitioners disagree with what defines burnout. What it is, how it appears, and how to deal with it whether or not burnout syndrome is a separate mental illness. Burnout is still misconstrued mainly as a mental illness. In academics, particularly in the sciences, there is a lot of chaos. The utility of burnout as a diagnostic tool has been questioned on various occasions. (Heinemann & Heinemann, 2017). However, this study aims to validate the Burnout questionnaire developed by Freudenberger (1981) among apprentice artisans in Ede, Osun State, Nigeria.

Objectives

This study aims to validate the Burnout Questionnaire developed by Freudenberger using a sample of automobile apprentice artisans to adopt a socio-cultural and acceptable psychometric property.

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MATERIALS AND METHODS

Participants

A total number of one hundred and fifty (150), [mean ± SD age was 21.4 ±3.6] automobile apprentice artisans which were all male was selected using a multistage sampling which included purposive sampling procedure to select the local Government Area for the study and simple balloting was adopted to select the six LGAs out of the thirty under the three senatorial districts in Osun state, southwestern Nigeria.

Measurement

Two scales were used for this study.

First is the Burnout Questionaire by Freudenberger, a 17-item instrument measured on the point of six Likert scale 0-5, designed to determine the symptoms of a syndrome known as "burnout". The interpretations of the scores are: 0-25 you are doing fine; 26-35 your stress is starting to show; 36-50 you are a candidate for burnout; 51-65 you are burning out; Over 65 you are in a dangerous place.

Second is the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), a 22-item instrument that captures three dimensions of burnout: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA), measured from the point of a seven Likert scale scoring from 0-6. Never to every day.

Data Analysis

Cronbach's standardized α, Spearman-Brown coefficient and Guttman Split-Half coefficient were computed to ascertain the reliability of the Burnout Questionnaire on the sample. The item-total correlation was also obtained to test the relationship between each item and the composite/total item score. Using Pearson's Correlation Analysis, burnout was correlated with Maslach Burnout Inventory (MBI) to determine the concurrent validity of the Burnout Questionnaire. The new norms for the instrument were determined using descriptive statistics such as mean and standard deviation.

RESULTS

Measurement of Reliability of Burnout Questionnaire

Item-Total statistics, Cronbach's alpha, Spearman-Brown coefficient, and Guttman Split-Half coefficient were used to measure the reliability and internal consistency of the scale. Table 1 displays the internal consistency of the scale. The corrected item-total correlation ranged from .15 to .52. The scale Cronbach's coefficient is ($\alpha = .83$), with a Spearman-Brown coefficient of .87 and Guttman Split-Half coefficient of .74 for part 1 and .64 for part 2.

This analysis shows that Burnout Questionnaire is a reliable measure for symptoms of Burnout Syndrome for the Nigerian population. The goodness-of-fit measures for all of the scale's items were satisfactory.

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Table 1: Item-Total Statistics of Burnout Questionnaire

S/N ITEMS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
1. Do you get tired easily?	31.66	201.877	.507	.353	.822
2. Do you feel fatigued rather than energetic?	31.31	201.478	.498	.408	.822
3. Are people annoying you by telling you "you don't look good lately"?	30.93	200.291	.467	.382	.823
4. Are you working harder & harder but accomplishing less?	30.76	194.976	.565	.415	.818
5. Are you increasingly suspicious and disappointed?	31.15	197.629	.480	.420	.822
6. Do you often experience unexplained sadness?	31.17	200.789	.475	.407	.823
7. Are forgetting appointments, deadlines or personal possessions more frequently?	31.25	203.372	.389	.355	.828
8. Have you become more irritable?	31.52	204.198	.397	.212	.827
9. Are you more short-tempered?	31.74	203.966	.400	.294	.827
10. Are you more disappointed with the people around you?	31.25	199.207	.476	.432	.823
11. Are you seeing family members and close friends less frequently?	31.02	193.456	.529	.449	.819
12. Are you too busy to do even routine things like make phone calls or read reports or send cards to friends?	30.99	198.201	.476	.298	.823
13. Are you experiencing increased physical complaints (aches, pains, headaches, lingering colds)	30.87	214.506	.154	.148	.840
14. Is joy elusive?	31.55	210.907	.244	.229	.835
15. Are you unable to laugh at a joke about yourself?	31.27	202.710	.460	.355	.824
16. Does sex seem like more trouble	30.93	202.465	.406	.350	.827
17. Do you have very little to say to people?	31.08	197.564	.479	.389	.822

Measurement of Validity of Burnout Questionnaire

To measure the validity of burnout, a concurrent validity technique was employed to show how well burnout compares to other well established related tests. Using Pearson's r, correlations between the Burnout Questionnaire and Maslach Burnout Inventory were investigated. As summarized in Table 2, burnout correlated positively and significantly with Maslach Burnout

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Inventory (r = .690, p= .001). This result shows that burnout is valid for the Nigerian population.

Table 2: Pearson's Correlations coefficient between Burnout Questionnaire (BQ) and Maslach Burnout Inventory (MBI)

		MBI	BQ
Maslach Burnout Inventory Total	Pearson Correlation	1	.690**
	Sig. (2-tailed)		.000
	N	150	150
Burnout Questionaire Total	Pearson Correlation	.690**	1
	Sig. (2-tailed)	.000	
	N	150	150

**. Correlation is significant at the 0.01 level (2-tailed).

Calculation of Norm for Burnout Questionnaire

This study employed the 95% Confidence Interval method in estimating the cutoff point for Burnout Questionnaire. As summarized in Table 3 with 95% confidence, the population mean is 33.1, and the standard deviation is 15.01, based on 150 samples [33.15 (95% CI 30.8 to 35.5)]. The mean plus one standard deviation of ≥ 48.16 was considered the group samples' cutoff point (norm). Scores above the norm implied moderate to severe burnout.

Table 3: The 95% Confidence Interval of cutoff point determination for MSPSS

	Sample
Margin of Error	2.4
Sample size	150
Sample mean	33.15
Standard deviation	15.01
95% Confidence Interval	33.15 (95% CI 30.8 to 35.5)
Cutoff point	≥ 48.16

DISCUSSIONS

The focus of this study is to obtain a psychometric property for the Burnout Questionnaire for the Nigerian population. The Burnout Questionnaire in the Nigerian version reported a high Cronbach alpha. The Burnout Questionnaire by Freudenberger has not received much validation as by researchers in the field. Hence, the authors could not compare our acceptable internal consistency value with previous ones. According to studies, the first burnout research was experimental and mainly relied on qualitative methodologies (Maslach & Leiter, 2016). Many of the proposed measures were based on the face validity of the measurement items or

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statements, and many of them were based on distinct assumptions regarding burnout. The Maslach Burnout Inventory (MBI) was the first burnout assessment based on a comprehensive program of psychometric research (Maslach, & Leiter, 2016). This explains why the Freudenberger Burnout Questionnaire has no psychometric qualities. However, one thing we established was that the Burnout Questionnaire was reliable for the Nigerian population with acceptable psychometric properties.

With a validity coefficient of ($r = .690$, $p = .001$) observed between the Burnout Questionnaire and Maslach Burnout Inventory, the Burnout Questionnaire is considered valid for measuring burnout among the Nigerian population.

Finally, the obtained group norm using the Nigerian sample is a novel addition to the scale as the developer. Previous users of the Burnout Questionnaire did not indicate the norm for the scale.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings the 17-item of the Burnout Questionnaire showed good internal reliability and a valid measure of symptoms of burnout. Accordingly, we conclude that Burnout Questionnaire has acceptable psychometric properties for the Nigerian population as it fits well to the Nigerian socio-cultural setting as a measure of burnout symptoms. Further validation studies using a larger sample, as well as other geopolitical regions of Nigeria are recommended.

Ethical Considerations

The Helsinki Declaration was followed in this study because it involved human subjects. The Internal Research Ethics Committee (IREC) of Redeemer's University Nigeria reviewed the research purpose and recommended procedures. Before administering the instruments, the respondents' informed consent was sought and obtained.

Conflict of Interest

The authors declare that there is no conflict of interest.

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