Research Article

Teachers’ Sociodemographic Characteristics, Psychological Distress, Job Satisfaction, and Their Willingness to Include Children with Special Needs in Regular Classes

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Advancing inclusive education in countries where children with special needs (CWSNs) are yet to be meaningfully included in regular schools will ensure the progress of Goal 4 of the Sustainable Development Goals. One potent determinant to the effective inclusion of CWSNs is teachers’ intention and efforts to integrate them into their classes. Yet, there is still inadequate evidence in the existing body of literature that will help stakeholders understand the psychosocial variables that will impact their intentions and efforts to include CWSNs in their classes. In view of this, our study determined the association between teachers’ sociodemographic characteristics, psychological distress, job satisfaction, and their willingness to include CWSNs in their classes using a hierarchical regression model. The sample size is made up of 502 secondary school teachers in Anambra State. Our model showed the potency of sociobiological and motivational factors on teachers’ inclusive education willingness of CWSNs in their classes. Teachers’ age, years of teaching experience, and job satisfaction are significant predictors of their inclusion willingness for CWSNs. Teachers’ psychological distress did not significantly predict their inclusion willingness for CWSNs. The significance and implications of our findings were underscored.

1. Introduction

Inclusive education aims to guarantee equitable access to education for all children. It allows all students to gain access to their schools of choice irrespective of their strengths, weaknesses, and disabilities [1]. It is understood as the right of every child to be effectively included in mainstream society [2, 3]. This implies that the rights of learners are not undermined as a result of any identifiable differences that may make them unique. This can include disabilities, gender, socioeconomic backgrounds, and religious and cultural beliefs capable of interfering with their academic success. Experts have asserted the similarity in the goals of educating children with special needs and those without special needs since they support the harnessing of the full potentialities of the child and ensure that children live productive lives in the community [4]. Notwithstanding these laudable benefits, most developing and low-income economies are faced with implementation challenges, such as lack of finance, resources, and quality data [5–7], weak commitment to inclusion [8–10], lack of facilities for accommodating students of all abilities [11–13], lack of government involvement in implementation and legislative issues [14–17], and issues and factors related to the teacher [18–21]. In the Nigerian
context, inclusive education is still not fully implemented. Predominant in the Nigerian setting are practices that do not fully support full inclusion [22].

A number of researchers have reported teacher-related factors in inclusive education implementation, which include teacher attitude, teaching methods/materials, knowledge, skills, and competence of the teacher, creating activities capable of fostering inclusivity [23–27] and teacher self-concept, empathy, and willingness to include CWSNs in regular classes [22, 28, 29]. One of the factors that have captured the attention of researchers in understanding teacher-related factors in inclusive education is their sociodemographic profiles. Researchers are beginning to consider teacher demographic variables as significant factors in accounting for differing teacher dispositions in inclusive education practices [22]. This could be tenable given that there is evidence in the literature that one’s social and biological attributes can impact one’s behaviors [30, 31]. Indeed, teachers’ biological and sociocultural backgrounds can influence their perceptions of the inclusion of CWSNs in their classes. This can arise from the fact that these backgrounds carry with them experiences that can impact the behavior of teachers. Although researchers have been engaged in understanding how teachers’ sociodemographic variables impact their inclusive education practices, the inconsistencies in the findings thereof demand a deeper investigation on how these variables affect their practices with regard to inclusion.

Important, also, is the fact that studies have associated teaching jobs with work stress which affects the well-being of teachers [32–35]. When the onerous mandate of teachers is put into proper perspective, there appears to be the possibility that presenting CWSNs would further escalate teachers’ stress levels which could lead to psychological distress. Teachers who deal with CWSNs suffer work-related stress which affects their job functions and emotions [36–39]. The work-related stress may result from the fact that teachers are required to give additional attention to CWSNs, realign their pedagogy and curricular contents in such a way that it will accommodate the diverse needs of the students, and work with other experts such as psychologists and medical practitioners. They may go as far as adopting flexible assessment practices that may not just be for ascertaining the academic achievements of the students but may be diagnostic in nature. These reveal that dealing with CWSNs may worsen regular teachers’ stress. Although a recent study showed that many caregivers of children with neurological disorders are psychologically distressed [40], there is a deafening gap in the literature on the psychological distress of regular teachers teaching CWSNs and how this can affect their efforts and intention for including them in regular classes. The need to investigate this rests on the fact that teachers serve in loco parentis to all students in school. Therefore, there is the possibility that when teachers are psychologically distressed, they may not likely be willing to accept CWSNs in their classes, which will definitely affect the progress of Goal 4 of the Sustainable Development Goals.

Of note, teacher job satisfaction and positive psychological capital are regarded as being very crucial in teacher motivation [41]. It could be inferred from this that willing efforts and intentions for meaningful inclusion of CWSNs in regular classes could be enhanced when teachers are satisfied with their jobs. Studies have revealed how teacher job satisfaction is negatively related to stress-related variables [42–44] indicating that teachers who perceive their jobs as satisfactory are likely to see their jobs as being less stressful and in this case may take up more responsibilities like providing a conducive learning environment to accommodate diversity in regular classrooms. We considered teacher job satisfaction an important factor that can influence teachers’ willing efforts and intention for the inclusion of CWSNs in Nigerian regular classes.

Understanding the factors that can influence the willingness of regular teachers to include CWSNs in their classes stands very critical given the abysmal implementation of inclusive education in Nigeria. Despite the fact that Nigeria is a signatory to several international agreements and arrangements that favor inclusive education, there are high dropout rates in both Nigerian primary and secondary schools [45] with about 95% of CWSNs technically denied access to basic education [45]. A number of teachers are opposed to the idea of inclusive education for CWSNs [46] which imperatively will affect their willingness to accept CWSNs in classes. This could have resulted from the harmful cultural beliefs about CWSNs in Nigeria especially for those with known physical disabilities, stressful job experiences, and perceived incompetence in teaching CWSNs. Besides, the urgent need to advance inclusive education in developing nations such as Nigeria demands that models incorporating diverse relevant variables that could explain the willingness of teachers to accept CWSNs in their classes are built. The understanding of the interplay between these factors and intervention plans that could emanate therefrom to enhance the success of inclusive education necessitated this study. This will give stakeholders in education the opportunity to be more proactive to counter teacher-related factors that impede the inclusion of CWSNs in regular classes. This is because the teacher-factor has been considered a potent factor in effective inclusive education practices [22]. This study has both theoretical and practical implications. Theoretically, this is the first study, to the best of the knowledge of the researchers, that has examined the associations among teachers’ characteristics (gender, age, years of experience, highest educational qualification), a negative effect variable (psychological distress), and a motivational effect variable (teacher job satisfaction) using hierarchical regression. This is very important given the fact that it enables researchers to understand how these variables are not only related to teachers’ willingness to include CWSNs in their regular classes individually but also how they interact to affect the outcome variable. Practically, this will enable practitioners to understand the nature of intervention programs that could be mounted for teachers. Teacher educators and institutions of higher learning responsible for training teachers in Nigeria may need to modify their curricular contents to address issues that can impact the willingness of teachers to include CWSNs in Nigerian regular classrooms. Also, through the findings of
our study, the Ministry of Education in Nigeria will be in a position to address psychological and motivational factors that may impact teachers’ willingness to include CWSNs in their classes. This may include the provision of a conducive working environment for teachers and making sure that regular teachers who handle CWSNs in their classes do not have large classes to teach.

2. Literature Review

In this section, our efforts are geared toward reviewing related literature to understand the existing gaps. Researchers are yet to understand the most predictive factors in inclusive education despite the efforts that are being made to promote inclusive education [47]. Our review was aimed at linking our predictor variables to the outcome variables from which our hypotheses were drawn.

2.1. Inclusive Education Practices and Teachers’ Sociodemographic Characteristics. Research regarding teacher sociodemographic characteristics and attitudes toward CWSNs has been conducted [48]. This emanates from the significant impact sociodemographic variables could have on human behavior. In the context of our study, these sociodemographic characteristics include teachers’ age, gender, years of teaching experience, and educational qualification. The perceptions on CWSNs are influenced by the culture prevalent in Nigeria especially among children with obvious disabilities. A number of people believe that children with disabilities are curses and punishments for the sins committed by their parents. Teachers’ sociodemographic variables could be impacted by these beliefs which can affect their willingness to accept CWSNs in their classes.

Teachers’ age could be an influencing factor in teachers’ willingness to accept CWSNs in regular classes. Studies have shown that younger teachers are more inclined to practice inclusive education than their older counterparts [49–51], while some other studies did not indicate significant relationships between teachers’ age and their inclusive education attitude [52, 53]. Age could be a significant factor in teachers’ inclusion willingness for CWSNs because it could be linked with experience and empathy. The older the teacher is, the more empathetic the teacher may be. Also, older teachers who have taught for longer periods may have gained more experience than younger teachers. On the other hand, it could be noted that the teacher curricula in Nigeria in the past had little or no content on inclusion, and many of the older teachers might have been trained without explicit instructions on how to include CWSNs in regular classes. This, undoubtedly, may affect their willingness to accept CWSNs in their classes.

Furthermore, regarding gender, there appears to be no clear consistency on its influence on inclusive education. Some studies have shown no gender impact on inclusive education practices [16, 54, 55], whereas other studies found a more positive attitude toward inclusive education among female teachers than their male colleagues [56–59]. Other studies, however, indicated that male teachers have a more positive attitude to inclusion than female teachers [60, 62]. Within the Nigerian context, the teaching profession in recent times is regarded as a profession for women. In most schools, female teachers are larger in number. There is the opinion that female teachers are more caring than their male counterparts. If this assumption stands to be true, there is the likelihood that female teachers may be more willing to include CWSNs in their classes than their male counterparts since CWSNs may present situations that demand additional attention from the teacher.

Teacher job experience is an integral element in determining teaching efficacy as studies revealed that more experienced teachers are inclined to bridge the gap between work and time off [63–65]. Generally speaking, students’ increased outcome, attendance, and overall success in school are linked to teaching experience in the United States, indicating that for most teachers an increase in experience results in more efficiency that benefits not just the teacher’s students but the school as a community [66]. We assumed that this can translate to the handling of CWSNs in regular classes. However, research studies have shown mixed findings with respect to inclusive education studies. Researchers have reported that experienced teachers have a more positive disposition toward inclusive education (IE) than less experienced teachers [67, 68]; as the level of experience increased, the level of concern decreased [69, 70] while, on the other hand, the studies by Fakolade, Adeniyi, and Tella [71], Nwosu, et al. [22], and Sesay [72] showed that teaching experience is not associated with positive attitude or support for inclusive education. Some studies, on the other hand, revealed that teachers with fewer years of experience are found to be supportive of IE than more experienced teachers [73–75]. Another study that focused on teacher inclusive self-efficacy has shown that although teaching experience may not have a direct effect on teacher inclusive self-efficacy, it had an indirect impact on their self-efficacy through their beliefs toward inclusive education [77]. Teaching experience being linked to teachers’ willingness to include CWSNs in regular classes may be a result of the fact that teaching competence and skills could be improved by the professional exposure of the teacher. Teachers who have taught for a long period of time are likely to have taught students with diverse needs, and addressing these needs may result in better teaching skills. Also, these teachers are likely to have greater opportunities for in-service training than those who have not taught for a long period of time.

Similarly, teachers’ acquisition of a higher qualification could influence willingness to accept CWSNs. There is the tendency that teachers who advanced their studies could acquire more advanced skills that can enable them to include CWSNs in regular classes. Indeed, there could be the opportunity for them to be exposed to current research in teaching and learning. Some studies have reported that teachers with advanced qualifications and in-service training showed more confidence in teaching in inclusive classes than teachers with lower-level qualifications [70, 77–79]. Succinctly, teachers with postgraduate degrees had a more positive attitude to IE than their colleagues with first degrees.
These sociodemographic factors can play significant roles in understanding teachers’ disposition or attitudes toward inclusive education. We, therefore, argued that sociodemographic characteristics of teachers such as age, gender, years of teaching experience, and higher qualifications are significantly associated with teachers’ willingness to accept CWSNs in regular classes.

2.2. Teachers’ Psychological Distress and Inclusive Education Practice. Most research themes on psychological distress have centered on issues that have to do with mental health among diverse populations [82, 83]. It has been noted that psychological distress is increasing globally [84]. Yet researchers have, to an extent, differed in their conceptualization of what psychological distress is, making it difficult to diagnose [82]. One of the most popular definitions is the one that defines psychological distress as emotional suffering associated with symptoms of depression and anxiety [85] as cited in [82]. Recently, researchers [86, 87] have taken to the tenants of stress-distress models by including stress as an important element in their definitions of psychological distress. For example, Viertio et al. [87] see it as “nonspecific symptoms of stress, anxiety, and depression” (p.2) while Arvidsdotter et al. [86] are of the view that it is “a state of emotional suffering associated with stressors and demands that are difficult to cope with in daily life. . . . an imbalance (incongruence) between the self and the ideal self, which slowly breaks down a person’s self-esteem - - - described in three dimensions: Struggling to cope with everyday life, feeling inferior to others and losing one’s grip on life” (p. 687). This, according to Drapeau et al. [82], will lead to failure to recognize the presence of distress where there is no perceived stress. Although the observations of Drapeau et al. may stand valid, it has not eroded the significant effect stress has on psychological distress. Given that the teaching profession is among professions with high levels of stress [32–35], researchers consider it necessary to investigate psychological distress and the factors associated with it [88]. A study that has ascertained the incidence of psychological distress among teachers in Nigeria revealed that teachers are more psychologically stressed than other civil servants [89]. A similar study also revealed that teachers in New York City have higher mean scores on a psychological distress scale than would be expected from an average resident in the community where the study was conducted [90]. Among Malaysian teachers, Ibrahim et al. [91] in their study demonstrated that the teachers are also psychologically distressed. An elevated level of psychological distress has been found among school leaders [92].

Furthermore, researchers have found that predictors of psychological distress among teachers include job strain [90], job demands, job control, and social support [91], threat/insult, use of psychoactive substances, work adverse effects, and workload [89]. There is insufficient evidence in the literature to draw a conclusion on how psychological distress could impact teachers’ job performances, especially as it has to do with inclusive education practices. However, given that a recurrent factor in predicting teachers’ psychological distress centers on work-related stress and demands, and the fact that including CWSNs could lead to stress, we hypothesized that teachers who are psychologically distressed are not likely to willingly include CWSNs in their regular classes.

2.3. Teachers’ Job Satisfaction and Inclusive Education Practices. Teacher job satisfaction has been said to facilitate both teachers’ and students’ well-being, school cohesion, and teacher retention [93]. Teachers who perceive their job as satisfactory are likely to be less stressed and suffer burnout in a milder way than those who are not satisfied with their jobs [94, 95]. Furthermore, there is evidence in the literature that teachers who are satisfied with their jobs provide better student support and quality instruction [96, 97] and indicate higher job commitment [98, 99]. There is little evidence on teacher job satisfaction and its association with inclusive education practice. Researchers have compared the level of job satisfaction of general teachers and special education teachers and found that general teachers were more satisfied with their jobs than special education teachers [100]. Similar to this study are the ones conducted by Abushaira [49] and Strydom et al. [101] in South Africa and Jordan which showed that teachers in special schools were moderately satisfied with their jobs. The situation in the Nigerian context shows that many teachers are not satisfied with their jobs. Teachers in Nigeria are poorly remunerated and in many cases may stay for months before being paid. Some schools are dilapidated and lack basic infrastructural architecture that can make teaching interesting. Many teachers teach large classes and experience work-related stress. These can affect their job satisfaction. We hypothesized that teachers’ job satisfaction will likely influence teacher acceptability of CWSNs and subsequent involvement in IEPs.

2.4. Willingness to Include CWSNs. Most research studies on inclusive education have focused on teachers’ attitudes toward inclusive education [55, 102]. Although attitude is a complex construct that is crucial to inclusive education implementation efforts, researchers have drawn from the evidence in the literature that mere possession of a positive attitude toward inclusive education is not really enough in regard to actual willing efforts in inclusive education policy implementation [103]. Indeed, there is the likelihood for individuals to differ in practical terms from their reported attitude to a situation. What this means is that there is the possibility that the perceived attitude of individuals may differ from their actual behavior when the situation presents itself. There could be factors that can affect the relationship between attitude and an individual’s action. Because of this, there appears to be an increasing interest to study teachers’ willingness to teach CWSNs [22, 28, 29, 103, 104]. An individual may have a positive attitude toward a particular thing, for example, teaching CWSNs in regular classes, but may not be willing to take up the responsibility to do so. Therefore, when we look at willingness, we look at readiness to engage in something. Within the inclusive education context, willingness to teach implies the intention of a
teacher to take appropriate steps to the inclusion of CWSNs in a regular classroom [103]. Furthermore, Gilor and Katz [104] have noted that willingness is "manifested in teachers' intent to invest a concerted effort to ensure that their lessons address students with disabilities too" (p.1). It is the eagerness and readiness of teachers to accept CWSNs in their classes in such a way that they will teach and provide emotional supports to CWSNs. Teachers who are ready to accept CWSNs in regular classes modify their pedagogy for the benefit of all learners in their classes. Given the importance of teachers' willingness to include CWSNs in regular classes, some factors associated with their willingness have been studied. These include teacher self-concept [28, 29], teacher empathy [29], attitude, self-efficacy, and subjective norms about inclusion [104], and teachers' sociodemographic profile [22]. Nwosu et al. [22] and Nwosu et al. [29] have noted that the willingness to include CWSNs in regular classes goes beyond teaching and extends to providing emotional/adaptive supports for them. We, in line with the observation of Gilor and Katz [104], believe that willingness to teach these students is critical to the efforts being made in Nigeria to advance inclusive education.

2.5. Conceptual Framework. From the review of related literature, we arrived at a framework that could explain the willingness of regular teachers to include CWSNs in the classes. This becomes necessary given the fact that research has demonstrated the exclusion of these children in regular classes, and what the task teachers could face as they teach CWSNs in regular classes could be stressful. We hypothesized that teachers' social demographic characteristics could be a factor [105, 106]. These include their gender, age, years of experience in teaching, and the level of their qualification. This is based on the perspective that both biological and social characteristics affect the way people behave [30, 31]. More so, the fact that the teaching profession could be stressful necessitated our hypothesis that teachers' psychological distress could impact whether they accept CWSNs or not. This can equally be affected by an individual's biological and social background. Furthermore, we hypothesized that teacher job satisfaction could impact their willingness to accept CWSNs in their classes in the sense that the provision of a soothing job experience could also reduce teachers' psychological distress which will likely relate to the willingness to accept CWSNs in regular classes. We categorized these variables as teacher characteristics (gender, age, years of experience, highest educational qualification), negative affect variable (psychological distress), and motivational effect variable (teacher job satisfaction). Although some researchers have examined some psychosocial factors that impact teachers' willingness to include CWSNs in their regular classes [22, 28, 29], none has examined how teachers' characteristics, psychological distress, and job satisfaction will individually and collectively associate with the willingness to accept CWSNs in their classes notwithstanding that literature shows that common among teachers handling CWSNs is the additional workload that can lead to psychological distress and job dissatisfaction. Previous studies have not focused on these, and this gap in the existing body of literature could limit the capability of researchers to derive any concrete generalizations on how different variables could impact teachers' willingness to accept CWSNs in regular classes especially in the Nigerian context. Our study is an attempt to provide empirical evidence on how teachers' profiles, psychological distress, and job satisfaction will be associated with their willingness to accept CWSNs in their classes. Additionally, our study will reveal how each variable impacts teachers' willingness to accept CWSNs in regular classes as the other is being controlled for. In our hierarchical regression, they were entered in the aforementioned block sequence. Our conceptual framework is represented in Figure 1.

3. Methodology

This section contains the step-by-step procedures adopted in conducting our study. Here, we explained the research design, participants, instruments, and data analysis procedures.

3.1. Research Design. The correlational research design was adopted in our study since we set out to understand the associations existing between the predictor variables and the outcome variable. Specifically, the hierarchical multiple regression analysis was adopted to analyze our data. The reason behind the choice of hierarchical regression is that we intended to investigate the variation that manifests in our outcome variables as a result of the subsequent addition of each of our independent variables [107]. This enabled us to understand the best model that predicts teachers' willingness to include CWSNs in their regular classes. Our conceptual framework guided our hierarchical model.

3.2. Research Participants. The sample size of our study consists of 502 secondary school teachers in Anambra State, Nigeria. We adopted a multistage sampling technique in sampling our respondents. The first stage consisted of randomly sampling 30 secondary schools (five schools from each Education Zone) from six Education Zones in Anambra State. At the second stage, we also used a simple random sampling technique to sample 20 teachers from each secondary school, which amounted to 600 teachers. When the questionnaire was distributed, 84% (502) of the teachers (male 29.8%, female 70.2%, mean age = 37.63, SD = 10.79) completed and returned the questionnaire. The sample characteristics are presented in Table 1.

The process we adopted in the collection of data complied with the ethical standards stipulated for data collection in behavioral sciences. We first sought and obtained the consent of the respondents by explaining in writing the essence of the study. We also put in writing the fact that respondents could quit the study at any time. We did not include any marker of identification of the teachers in the questionnaire. Our research protocol was approved through the Faculty of Health Sciences and Technology Ethical Committee (NAU/FHST/2021/MRH135).
3.3. Instruments for Data Collection

3.3.1. Sociodemographic Variables. These were determined by a short questionnaire soliciting information on teachers’ gender, age, highest educational qualification, and years of experience. The respondents were implored to tick the boxes provided that described them. The sociodemographic variables were purposefully chosen to include characteristics related to biological profiles and sociological (educational) characteristics of teachers. The researchers used gender (dichotomously scored 1 [male], 2 [female]), age, years of experience, and the highest level of education (later categorized as predegree/degree, and postgraduate degree qualifications) in the model. Hence, the level of education was dichotomously scored.

3.3.2. Psychological Distress Scale. To measure teachers’ psychological distress, we adopted the Kessler Psychological Distress Scale- K10 (KPDS-10). This was developed by Kessler et al. [108]. This is an easy-to-administer 10 item instrument that assesses the degree to which an individual is psychologically distressed, focusing on depressive and anxious symptoms [109]. The respondents are made to have a retrospective recollection of their experiences in the past 30 days. The items are scaled using the five-point scales of ‘never’ (1) to ‘always’ (5). This scale has been used among diverse populations [110, 111] including university teachers [112]. The psychometric properties of the instrument have been found to be satisfactory [109–111]. To score the instrument, items are summed together. A score of 10 is the minimum score an individual can get while a score of 50 is the maximum score an individual will get. Andrew and Slade [113] have shown the levels of psychological distress. They noted that individuals with a score ranging from 10 to 15 have low psychological distress, those with scores from 16 to 21 are moderately distressed, and individuals with scores ranging from 22 to 29 have high psychological distress, while those with scores between 30 and 50 are very highly distressed.

| Table 1: Sociodemographic characteristics of teachers. |
| --- | --- | --- | --- |
| Mean | SD | Frequency | Percentage |
| Age | 37.62 | 10.79 | — | — |
| Years of experience | 10.29 | 9.09 | — | — |
| Gender | | | | |
| Male | — | — | 147 | 29.80 |
| Female | — | — | 346 | 70.20 |
| Total | — | — | 493 | 100.00 |
| Missing values | — | — | 11 | 2.20 |
| Highest qualification | | | | |
| NCE | — | — | 114 | 24.10 |
| B.Ed/BA/B.Sc | — | — | 321 | 67.70 |
| M.Ed/MA/M.Sc | — | — | 32 | 6.80 |
| PhD | — | — | 7 | 1.50 |
| Total | — | — | 474 | 100.00 |
| Missing values | — | — | 30 | 6.00 |
| Highest qualification categorized | | | | |
| Pre/degree qualifications | — | — | 435 | 91.90 |
| Postgraduate qualifications | — | — | 38 | 8.10 |
| Total | — | — | 473 | 100.00 |
| Missing values | — | — | 32 | 6.20 |
3.3.3. Teacher Job Satisfaction Scale (TJS). We adopted the seven-item Teacher Job Satisfaction Scale (International Association for the Evaluation of Educational Achievement (IEA) Trends in International Mathematics and Science Study (TIMSS), 2015). TJS was structured on a four-point scale of ‘very often’, ‘often’, ‘sometimes’, and ‘never/almost never’. The internal consistency of the items has been ascertained in about 39 countries with coefficient values ranging from $\alpha = .85$ to $\alpha = .95$. The instrument is appropriate for our study given that it is a context-specific job satisfaction instrument.

3.3.4. Teacher Willingness to Include Children with Special Needs Questionnaire (TWICWSNQ). This questionnaire is a combination of the Low et al. [28] “Teacher Willingness to Teach Challenging Children Questionnaire (TWTCCQ)” and the Mahat’s [40] “Teachers’ Multidimensional Attitude towards Inclusive Education Scale (TMATIES)” as adapted by Nwosu et al. [22] and Nwosu et al. [29]. The behavioral component of the TMATIES was adopted based on the fact that it measured the intention (willingness) of teachers to provide emotional and adaptive supports for CWSNs. The psychometric properties of this instrument have been ascertained by Nwosu et al. [22] and Nwosu et al. [29] and have been confirmed fit. The instrument demonstrated adequate fit indices and showed a two-factor solution (factor one contains 4 items and is for teaching support, while factor two contains 6 items and is for emotional and adaptive support [22, 29].

4. Method of Data Analysis

Data were analyzed following the standard for regression models. Before the actual analysis, the assumptions of hierarchical multiple regression analysis were tested using SPSS version 27. We checked for outliers using Standard Residuals and the Cook Distance [99], multivariate normality using Histogram and Normal P–P Plot of Standard Residuals, multicollinearity using Tolerance and Variance Inflation Factor, assumption of independent errors using Durbin–Watson, and linearity and homoscedasticity using the scatter plot. We further used Amos version 24 to conduct a confirmatory factor analysis. Fit tests such as chi-square ($\chi^2$), comparative fit index (CFI), the goodness of fit index (GFI), root mean square error of approximation (RMSEA), and Tucker–Lewis Index (TLI) [114, 115] were adopted. The cut-off points for these fit tests are that the probability value of Chi-square should be less than 0.05, while TLI, GFI, and CFI values should be greater than 0.90, whereas the RMSEA should be less than 0.08 [114, 115]. The test of internal consistency was ascertained using Cronbach alpha ($\alpha$) [116].

5. Results

5.1. Assumption Testing and Preliminary Findings. We first conducted a number of tests to ensure that our data did not violate relevant regression assumptions. This is essential given that violation of one or more of these assumptions may render the model invalid and unacceptable for the estimation of the population parameters [117]. For the dictation of the outliers, which if not handled can distort the predictions [118], the Analysis of Standardized Residuals and observation of the Scatter Plot revealed two outliers for participants 125 and 385. These outliers were deleted and the Standardized Residuals were rerun, which showed that the data contained no further outliers (Std. Residual Min = -2.96, Std. Residual Max = 2.52). We also adopted Cook’s distance test to have an understanding of the influence arising from each individual observation. Cook’s distance values were $Min = 0.000$ and $Max = 0.053$. Cook’s distance graph (Figure 2) reveals that the observations were below the maximum value.

To test for the normality, the histogram and Normal P–P Plot of Standard Residuals showed that the errors contained in the data were approximately distributed. For the Normal P–P Plot of Standard Residuals, the points were very close to the regression line [107]. The Histogram and Normal P–P Plot of Standard Residuals are presented in Figures 3 and 4, respectively.

Furthermore, Tolerance and Variance Inflation Factor (VIF) tests indicated that multicollinearity was not a concern given that the Tolerance values ranged from 0.50 to 0.83 while those of the VIF ranged from 1.01 to 2.87. This met the assumption that VIF should be < 10 [117, 119] while Tolerance values should be > 0.1. The assumption of independent errors for our data was also met (Durbin–Watson value = 1.68). The Durbin–Watson value should be between 1.5 and 2.5 [120] as cited in [107]. The scatter plot as presented in Figure 5 showed that the assumptions of linearity and homoscedasticity were met in the sense that the “residuals are randomly scattered around the zero point on the horizontal line” ([107]:338).

5.2. Reliability and Validation of the Instruments. Because the reliability and validity of the instruments could be context-specific [121], we ascertained the internal consistency of the instruments and reconfirmed the instruments among our population by ascertaining the factor loadings and fit tests of each instrument. The CFA indicated that item 9 in KPDs-10 had a factor loading less than 0.4 and affected the model fit of the instrument. It was deleted and reanalyzed and the instrument showed an acceptable fit with the remaining 9 items. Except for KPDs-10, the items in the other two instruments loaded well. However, in our study, we summed the two dimensions of the TWICWSNQ together. All the psychometric indices of the instruments showed that the instruments were robust enough to be used for our study. Table 2 is a summary of the reliability and validation indexes of the instruments.

Table 3 reveals the relationships among the variables. Teachers’ age showed a negative significant relationship with their inclusive education willingness for CWSNs in their classes, $r = -.143$, $p < 0.05$, while teacher job satisfaction is positively and significantly related to teachers’ inclusive education willingness for CWSNs in their classes, $r = .370$. Among the predictor variables, interrelationships also existed. Teachers’ age and years of experience had a negative significant relationship with their psychological distress, $r = -.115$; $r = -.136$, respectively, while their gender had a significant positive relationship with their psychological
**Figure 2:** Cook’s distance graph.

**Figure 3:** Regression Standardized Residual Histogram.

**Figure 4:** Normal P-P Plot of Regression Standardized Residual.
distress. On the other hand, gender, age, and years of experience had significant positive relationships with teacher job satisfaction, $r = .156$, $r = .170$, $r = .182$, respectively. Teachers’ psychological distress had no significant negative relationship with teacher job satisfaction.

Table 4 shows the hierarchical regression analysis. In the first model, teachers’ sociodemographic variables jointly predicted their inclusive education willingness for CWSNs, accounting for 6.2% of the variance in their willingness to accept CWSNs ($F(4,287) = 4.684$, $P < 0.005$; $R^2 = .062$, adjusted $R^2 = .049$). Using $\beta$, teachers’ age ($\beta = -.390$, $t = -4.063$, $p < 0.0001$) and their years of experience ($\beta = .354$, $t = 3.735$, $p < 0.0001$) made significant individual contributions to the variance in teachers’ inclusive education willingness for CWSNs. Teachers’ age made the highest individual contribution in the first model. In the second model, the predictor variables jointly predicted their inclusive education willingness with CWSNs, accounting for 6.4% variance in the outcome variable ($F(5,287) = 3.851$, $P < 0.005$; $R^2 = .064$, adjusted $R^2 = .047$). Teachers’ psychological distress ($\beta = -.043$, $t = -.742$, $p > 0.005$) did not make an individual significant contribution to the variance in the outcome variable. The change in $R^2$ between the first and second models ($\Delta R^2 = .002$) was not significant. In the final model, there was a joint significant association between the predictor variables and the outcome variable ($F(6,287) = 15.232$, $P < 0.0001$; $R^2 = .245$, adjusted $R^2 = .229$). The change in $R^2$ between the second and the third models ($\Delta R^2 = .182$) was
significant. Teacher job satisfaction ($\beta = 0.442, t = 8.221, p < 0.0001$) made the highest individual significant impact on the outcome variables. The introduction of teacher job satisfaction in the third model contributed to an 18.2% change in the variance in inclusive education willingness for CWSNs.

### 6. Discussion

Our study attempted to demonstrate the relationships between teachers’ sociodemographic variables (gender, educational qualifications, age, and years of experience), psychological distress, teacher job satisfaction, and their inclusive education willingness for CWSNs using the hierarchical multiple regression analysis. This is very important given the fact that inclusive education is yet to be fully implemented in Nigeria notwithstanding that the Nigerian government is a signatory to many international agreements that support education for all learners. Most teachers are also skeptical about the inclusion of students in regular classes. This has led to many CWSNs not being fully integrated into school, and in some cases, they are denied access to quality education. Not meaningfully including CWSNs in regular schools can affect their capacity to interact with the larger society and deprive them of the social interactions that can improve their well-being. Hence our findings are critical to advancing inclusion in Nigeria and improving the lots of CWSNs.

Our findings in the first model revealed that teachers’ sociodemographic characteristics jointly predicted their inclusive education willingness for CWSNs in their regular classes. This means that their inclusive education willingness for CWSNs could be affected by teachers’ sociodemographic characteristics. Some studies have demonstrated the impact of both prospective teachers’ and practicing teachers’ sociodemographic characteristics on inclusive education beliefs and practices [105, 107, 122]. However, except for the gender variables, a number of variations exist on how these variables are conceptualized and categorized. This has led to differences in the outcomes of the studies and may make it difficult to draw a conclusion and generalization.

| Table 4: Hierarchical multiple regression analysis on factors predicting teachers’ willingness to include CWSNs in regular classes (N = 502). |
|---------------------------------|-----------------|-----------------|-----------------|
| **Teacher characteristics (sociodemographic variables)** | Model 1 ($\beta$) | Model 2 ($\beta$) | Model 3 ($\beta$) |
| Gender | $-0.017$ | $-0.014$ | $-0.083$ |
| Age | $-0.390^{***}$ | $-0.391^{***}$ | $-0.386^{***}$ |
| Years of experience | $0.354^{***}$ | $0.350^{***}$ | $0.267^{**}$ |
| Highest qualifications (predegree/degree and postgraduate degree qualifications) | $-0.036$ | $-0.035$ | $-0.006$ |
| **Negative affect variable** | | | |
| Psychological distress | | $-0.043$ | $-0.012$ |
| **Motivation affect variable** | | | |
| Teacher job satisfaction | $0.062^{**}$ | $0.064^{**}$ | $0.442^{**}$ |
| $R^2$ | $0.267^{***}$ | $0.267^{***}$ | $0.245^{***}$ |
| $\Delta R^2$ | $-0.014$ | $0.002$ | $0.182^{***}$ |
| $\Delta F$ | $-0.035$ | $0.550$ | $67.591^{**}$ |

Note. $^{**} P < 0.005$, $^{***} P < 0.0001$. Gender and highest qualification were the only variables that were dummy coded. Male was coded 1, female 2; predegree/degree was coded 1 while postgraduate degree qualifications were coded 2. $\beta$ = standardized beta; $\Delta R^2 = R$ square change; $\Delta F = F$ change.

Our findings revealed that gender has no significant relationship with teachers’ willingness to include CWSNs in their regular classes. Our finding contradicted that of Dev and Kumar [105] who studied the impact of gender on the perception of teachers on including students with disabilities in their regular classes. While our study indicated no significant relationship, the findings of Dev and Kumar [105] showed female teachers were more receptive to children with disabilities in their classes. They reported that female teachers were more enthusiastic to integrate students with disabilities into their classes. In another study by Mngo and Mngo [68], male teachers were reported to differ significantly from female teachers on their perceived benefits of inclusion. Male teachers were said to see inclusive education as being more beneficial than the way female teachers perceived it. Studies that have examined the impact of gender and teachers’ perceptions on inclusive education have remained largely inconclusive. This demands that researchers should investigate the issue of gender and teachers’ inclusive education practices deeply.

Furthermore, we found that teachers’ age and years of experience had a significant individual impact on the variance in teachers’ responses to their inclusive education willingness for CWSNs, while the other two remaining variables did not. The age of the teachers negatively predicted their inclusive education willingness for CWSNs, implying that the older the teacher, the more likely that they will be unwilling to accept CWSNs in their classes. Indeed, this is against our initial assumption that those who are older may be more empathetic in including CWSNs in regular classes, and it is also contrary to the findings of Dev and Kumar [105] that indicated that older teachers are more inclined to integrate CWSNs in regular classes than younger teachers. More so, our findings contradicted the finding of a similar study conducted by Mngo and Mngo [68] in which it was revealed that older teachers were more favorable to inclusive education than younger teachers. Their finding indicated that the older the teacher, the more likely he/she is supportive of inclusive education while, in our study, results indicated that age is a negative predictor of teachers’ willingness to accept CWSNs in their regular classes implying
that the younger the teacher, the more willing he/she is to include CWSNs in regular classes. Older teachers may have received significantly different teacher training than the younger ones. Given that inclusive education is at its infancy in Nigeria and in many other developing nations, there is the likelihood that older teachers may still prefer the tradition of providing special education to CWSNs in more specialized institutions. Before now, inclusive education content was not included in most teacher education curricula in Nigeria [21]. What was the practice was an emphasis on ‘special education’ with little or no content that can equip the trainee teacher with skills to include CWSNs in regular classes after their training.

Teachers’ experience was a positive significant contributor to teachers’ willingness. What this means is that those who are more experienced are more willing to include CWSNs in regular classes. They may be more accurate in accessing the benefits and tasks involved in including CWSNs in regular classes, which may lead to their willingness to include CWSNs in their classes. This is in agreement with our earlier hypothesis that those who have more experience might have garnered skills and competencies that can enable them to teach and provide emotional supports to these children. This is based on the fact that teacher competence in inclusive education practice has been highlighted in the literature [123]. Similarly, the study by Avramidis et al. [54] that investigated the attitude of teachers toward inclusive education based on whether they have active experience in implementing inclusive education or not agrees with our finding. Their study indicated that teachers with active experience in implementing inclusive education possessed a more favorable attitude toward inclusive education than those who were from randomly sampled schools. Our finding, however, contradicted that of Mngo and Mngo [68]. Although Mngo and Mngo found a significant effect of teachers’ experience on teachers’ support for inclusive education, the direction of the significance of their finding differed from ours. Their result indicated that teachers’ support for inclusive education grew in the early years of their careers but steadily declined as they grew in the profession. Also, similar studies conducted by Dave and Kumar [105], Fakolade et al. [71] and Sesay [72] showed that teacher experience did not significantly influence their attitudes. These studies indicated that significant mean differences did not occur in the attitude of teachers toward inclusion education. In other words, teachers with high experience and those with low experience had similar attitudes toward inclusive education. Our findings might have differed from the aforementioned studies, with the exception of that by Avramidis et al. [55], because while those studies centered on attitude to inclusive education and perceived support, ours focused on willingness to accept CWSNs in their regular classes. Avramidis et al. [55] looked at the active experience in inclusive education and teachers’ attitude toward inclusion. Their comparison was between teachers who have been practicing inclusive education and those who were sampled from random schools. Their study differed from those by Dave and Kumar [105], Fakolade et al. [71], and Sesay [72] given that others were on the general experience of teachers. There is, therefore, the need for researchers to investigate if the discrepancy could exist between attitude and willingness to include CWSNs in regular classes.

In the second model, although there was a joint significant impact of the predictor variables on teachers’ inclusive education willingness for CWSNs, the addition of teachers’ psychological distress made no significant contribution to their inclusive education willingness for CWSNs. The model showed that teachers’ psychological distress may not have any impact on whether teachers may be willing to include CWSNs in their classes or not. What this implies is that teachers’ inclusive education willingness for CWSNs has no relationship with their psychological distress. Although there is no existing literature relating teachers’ psychological distress to inclusive education practices, our finding can be understood from the viewpoint that there may be other variables that buffer the effects of psychological distress on their willingness to accept CWSNs. Studies have shown how important teacher empathy is to include CWSNs in regular classes [29]. In their study, it was revealed that the more empathic the teacher is, the more the teacher is willing to include CWSNs in their classes. It could be reasoned that other teacher prosocial behaviors (e.g., empathy) can mitigate the effect of their psychological distress on the inclusion education practice.

In the final model, the addition of teacher job satisfaction resulted in a significant $R^2$ change of 24.5%. This shows that adding job satisfaction to the previous model led to a significant variance in the responses of the teachers to the outcome variable. The hierarchical regression also showed that job satisfaction is the best predictor of the outcome variable in comparison with the other predictor variables. This demonstrates that the most potent factor to teachers’ inclusive education willingness for CWSNs is their job satisfaction. An interesting finding in our study is the finding that showed that the addition of teacher job satisfaction in the model decreased significantly the impact of teacher psychological distress. This reveals that a positive motivational effect could make teachers willing to accept CWSNs irrespective of the distress that may arise from this. Although there are no studies that have linked teacher job satisfaction with their inclusive education willingness for CWSNs available in the literature, our finding is in line with other researchers who have noted that teacher job satisfaction and positive psychological capital are regarded as very significant factors in teacher motivation [41]. This could mean that teachers who perceive their jobs as satisfactory are likely to be motivated to up tasks (e.g., including CWSNs in their classes) that may be considered tasking.

7. Conclusion

Our study revealed the association between teachers’ sociodemographic profiles, psychological distress, job satisfaction, and their inclusive education willingness for CWSNs.
Our findings have emphasized the import of a biosocial variable in teachers’ inclusive education willingness for CWSNs. This is also very critical in providing intervention programs. Teachers’ age was a negative predictor indicating that older teachers may be unwilling to accept CWSNs in their classes. Apart from the fact that aging could be associated with a number of workplace problems, these teachers may have different training from the younger ones. There is, therefore, the need to retrain teachers and bring to the fore the lasting benefits of inclusive education not only the students but also the society at large. Our finding that shows that teachers’ experience was a significant predictor showed the need to arm teachers with training that will help them effectively include CWSNs in their classes.

Furthermore, we learned also from our findings that teacher job satisfaction is a potent factor to determine whether teachers include CWSNs in regular classes or not. This shows that motivating teachers is very critical to their inclusive education practice. Working conditions of teachers must be made conducive. There should be an enabling environment for inclusive education to thrive.

We concluded, based on our findings, that both biosocial and motivational factors are important in determining the willingness of teachers to include CWSNs in regular classes. It implies that to fully understand teachers’ inclusive education willingness for CWSNs may entail building a comprehensive framework that will take into consideration teachers’ biosocial and motivational variables.

7.1. Limitations and Suggestions for Further Studies.
Notwithstanding the significance of our findings, generalizing our findings will be limited by a number of factors. First, the number of sociodemographic variables included in the model is limited. There are other variables that may be added to make the model more elaborate. These sociodemographic variables could include religious and cultural beliefs and school location (rural/urban). This could be important given that literature has identified cultural and religious beliefs as factors that can impact inclusion education practice. Not including these variables could be a limitation to the study. Second, the adoption of a questionnaire as the only instrument may limit the generalizability of the findings. The adoption of a mixed-method approach may yield more robust findings. Therefore, we suggest that future researchers may adopt a mixed-method approach in future investigations and include teachers’ religious and cultural beliefs and the location of their schools as variables that can affect their inclusion willingness.

Data Availability
The data that supported the findings of this study are available from the corresponding author (kc.nwosu@unikz.edu.ng) upon request.

Conflicts of Interest
The authors declare that they have no conflicts of interest.

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