IOSR Journal Of Humanities And Social Science (IOSR-JHSS)
Volume 22, Issue 6, Ver. 7 (June. 2017) PP 01-14
e-ISSN: 2279-0837, p-ISSN: 2279-0845.
www.iosrjournals.org

Mediating Roles of Resilience and Optimism between Work Demand and Psychological Distress among Pre-School Pupils' Caregivers

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Abstract: Psychological distress has become a serious issue with consequent negative outcomes on individuals and organisations. This study investigated the mediating roles of resilience and optimism between work demand and psychological distress among preschool pupils' caregivers in Ekiti State, Nigeria. A descriptive survey research design was adopted. A sample of 605 caregivers was chosen through stratified random sampling technique. Data were collected using: (i) Demographic Data Form, (ii) Kessler Psychological Distress Scale, (iii) Perceived Work Demand Scale, (iv) Connor-Davison Resilience Scale, and (v) Life Orientation Test Revised. Data were analyzed using Regression Analysis and Pearson Product Moment Correlation Coefficient with result tested for significant at .05 level. Findings revealed, among other things, that there is a significant positive relationship between psychological distress and resilience ($r = .263$; $p < .001$), but not between psychological distress and optimism ($r = .010$; $p > .05$) and psychological distress and work demand ($r = .071$; $p > .05$). There was no significant direct effect of work demand on psychological distress of caregivers, independent of resilience and optimism (coeff = -.043; $p > .05$). Resilience mediated between work demand and psychological distress of preschool pupils' caregivers. However, neither optimism nor both resilience and optimism did not. The study concluded that resilience and optimism are not significant mediators between work demand and psychological distress of preschool pupils' caregivers. Based on the findings, it was recommended, among others that other factors that could cause a positive relationship between psychological distress and resilience should be identified, isolated, and controlled for further research.

Keywords: Caregivers, Optimism, Psychological Distress, Resilience, Work Demand

I. INTRODUCTION

1.1 Background to the Study

In recent times, greater attention and research efforts have been drawn to, and put on the incidence, antecedents and consequences of psychological distress. Psychological distress has been defined in numerous ways. It is a general term used to describe unpleasant feelings or emotions that impact the level of functioning. In other words, it is the psychological discomfort that interferes with ones activities of daily living. It is largely defined as a state of emotional suffering characterized by symptoms of depression (e.g., loss of interest; sadness; hopelessness) and anxiety - e.g., restlessness; feeling tense [1]. Psychological distress can result in negative views of the environment, others, and the self. The manifestation of psychological distress includes sadness, anxiety, distraction, and symptoms of mental illness [2-3].

Literature confirms the relationship between psychological distress and variables like job insecurity, suggesting that increased levels of job insecurity are associated with increased levels of psychological distress [4]. Caregiving status was significantly associated with psychological distress [5]. Psychological distress is also related to limitations in day-to-day activities due to emotional problems [6], maladaptive use of both the Internet and the mobile phone [7], smoking status [8], higher suicidal ideation, even when accounting for resiliency [9], preoperative anxiety, depression, and postoperative pain [10], psychosocial work environment [11], sleep disturbances [12], quality of life [13], and impaired health-related quality of life [14]. The severity of psychological distress is negatively associated with job satisfaction [15].

Higher psychological distress was related to higher age, more intense pain, a higher positive tender point count, and more physical disability [16]. Caregivers reported higher psychological distress but higher positive mental health (i.e., self-esteem and content with life), higher positive mental capacity (i.e., coping with crises), and higher positive mental quality (i.e., helping others) [17]. Objective health has an indirect effect on psychological distress, in size comparable to the effect exerted by functional status and subjective health [18]. Psychological distress was associated with quality of life [13]. High psychological demands combined with low

or high decision latitude, and effort/reward imbalance were associated to psychological distress independently of potential confounding factors [19]. More cumulative risks were associated directly with more psychological distress, substance use and delinquency [20]. It is expected that high work demand would lead to high psychological distress. However, limited studies have examined the relationship between work demand and psychological distress. For example, job demands were only directly related to psychological distress [21].

Job demands refer to those physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs [22-24]. Work demand are the psychological stressors involved in accomplishing the workload, stressors related to unexpected tasks, and stressors of job-related personal conflict [25-26]. Job demands refer to the things that have to be done or activities to be performed, and include the physical, social or organizational aspects of the job that require sustained physical and mental effort [24]. Job demands include situational factors such as role ambiguity, role conflict, stressful events, heavy workload and work pressure, pressure to make critical and immediate decisions, being assigned more responsibility, and having to meet deadlines [27-28]. Job demand is hindrance job stressors or work circumstances that involve excessive or undesirable constraints that interfere with or inhibit an individual's ability to achieve valued goal [29-30]. Job demands consume energy and may therefore eventually lead to exhaustion and related health problems [31]. Work demands refer to pressures arising from excessive workload and time pressures [32].

Literature suggests that work demands such as number of hours worked, workload, shift work are positively associated with work–family conflict. Work demand has been positively linked with burnout syndrome and musculoskeletal complaints, higher work stimuli were associated with lower burnout [33]. Work demands put higher-educated workers at risk of less favorable health outcomes [34]. Higher job demands are detrimental in men, whereas for men, it seems to be more related to work demands [35]. Higher job demands stimulate promotion of ideas among men but were detrimental for innovation among women [35]. In another study the 'costs' of psychosocial work demands were stronger among women [34]. High work demands, job strain, bullying, and effort-reward imbalance were related to more future sleep disturbances [36]. Job demands were only directly related to psychological distress [21]. Also a strong positive correlation existed between performance and job demand [37]. Few researches have also been conducted to understudy the variables that would mediate the relationship between work demand and psychological distress. For example, burnout mediates the relationship between job demands and psychological distress [38]. However, the influence of psychological capital such as resilience and optimism on the relationship between work demand and psychological distress has not been well documented.

Resilience is a term used across all research disciplines and in everyday discourse [39]. Resilience has become a prominent concept to understand system vulnerabilities and flexible ways of adapting to crises [40]. Resilience is typically conceptualized as successful adaptation to serious negative life events [41]. Psychological resilience can be defined as individual's ability to withstand and adapt to adverse and traumatic events [42]. Resilience is an adaptive mindset that generally enables people to survive and thrive in adversity [43]. It is the difference between the twins' total score on a broad measure of internalizing symptoms and their predicted score based on their cumulative exposure to stressful life events [44], and the ability to maintain positive emotional and physical functioning despite physical or psychological adversity [45].

Resilience relate positively to psychological well-being and negatively with psychological distress, depression and anxiety [46-47]. High resilience has also been significantly associated with positive outcomes, including successful aging, lower depression, and longevity [48]. Adaptive strategies were more strongly correlated with resilience than maladaptive strategies [49]. Self-esteem, spirituality, quality of life, and hopelessness were correlated with resilience [50]. Youths' perceived resilience was related with less suicidal ideation whereas higher psychological distress was associated with higher suicidal ideation [9]. Resilience is related to service satisfaction but not the quantity of services used by youths [51]. High resilience was associated with a reduction in depression scores at higher levels of sexual abuse [52]. Parents of burn survivors experience significant psychological distress with low levels of resilience [53]. Resilience has a significant positive relationship with work engagement [54]. Negative correlation existed between job insecurity and resilience as well as resilience and general health. Individuals with high levels of resilience reported low levels on job insecurity and psychological distress [4]. Studies have indicated that resilience predicts psychological well-being [55]. Resilience can even be a predictor of psychiatric symptoms [47]. Resilience can predict severity of symptoms mindfulness and psychological well-being [56] and adjustment to university life and its sub-dimensions [57].

Several research models exist to showcase the mediating role of resilience in such relationship between mindfulness and life satisfaction and affect components [58], depressive symptoms and psychological health status [59] and work stress and burnout [60]. Resilience also mediate the effects of age and gender on emotional distress [61], and the impact of risk factors on outcomes and is affected positively by the quality, but not the

quantity of the psychosocial services provided to adolescence with complex needs [51]. The mediating influence of resilience between work demands and psychological distress has not been well documented. It is however conceived that with resilience, the negative effect of work demand on psychological distress would be reduced.

Optimism is another psychological capital which has been defined as a cognitive construct (expectancies regarding future outcomes) that also relates to motivation: optimistic people exert effort [62]. To Optimism is a generalized expectancy for positive future outcomes that seems to have adaptive and beneficial effects [63]. Optimism is an individual difference variable that reflects the extent to which people hold generalized favorable expectancies for their future [64].

Dispositional optimism is an important product of human evolution. This individual difference variable plays a core role in human experience. Dispositional optimism is beneficial to physical and psychological wellbeing [65]. Dispositional optimism is a personality trait characterized by generalized positive expectations towards the future which is thought to remain rather stable over time [66]. Dispositional optimists expect more good things to happen to them than bad [67-68]. This positive outcome expectancy has been linked with better psychological well-being and mental health in the form of less distress, better adjustment and quality of life, better life satisfaction, better social support, and also less anxiety and depression [68].

Research has shown that higher optimism was associated with better physiological adjustment to a stressful situation, with optimism playing a more important role in the physiological component of the stress response [69]. Optimism is also related to indicators of better physical health [64]. There is evidence that optimism is associated with taking proactive steps to protect one's health, whereas pessimism is associated with health-damaging behaviors. Lower levels of dispositional optimism are associated with stage of affective disorders, even after remission, and a history of childhood emotional maltreatment. Optimism indeed appears to be associated with higher levels of subjective well-being, better health, and more success [70]. However, optimism relates to more persistence in educational efforts and to higher later income [71]. Optimism has been linked to higher levels of engagement coping and lower levels of avoidance, or disengagement, coping [72].
Higher optimism predicts longer persistence, and there was a trend towards the same effect for conscientiousness. [73]. Optimism was the strongest predictor of fear, independent of anxiety and level of fear reported prior to treatment [74]. Optimism predicts more persistence in educational effort and higher later income [72]. Moreover, optimism was shown to be a direct predictor of the greater use of engagement coping, and better psychological adaptation to college transition [75]. Studies have been conducted to establish the mediating role of optimism in such relationship between meaning in life and both positive and negative aspects of well-being [76]. Optimism mediates the relationship between resilience and psychological well-being [55]. Furthermore, optimism mediates outcomes related to both, negative sexual self-concept and high-risk sexual behaviors [77]. However, optimism mediates the relationships between cyber bullying and stress as well as job satisfaction [78].

1.2 Statement of the Problem

Working with young children of age 3 to 5 years may not be an easy task. The work is highly challenging, and sometimes it can be wearisome, traumatic and awesome. Caregiving is very strenuous, demanding and laborious. It can affect every area of caregivers' life; be it physical, spiritual, psychological, financial, health and as well his or her vocational wellbeing. Unlike most other professions, childcare providers are unable to leave the work place when it becomes too stressful. Caregivers must at all times supervise children learning activities, play with them, keep watch on them and make sure that they are safe and in good health conditions. It is also the responsibilities of caregivers to supervise children's safety as well as provide for their curious minds and active bodies. Caregivers again always prevent situations that threaten children's well-being. A number of situations may arise in the classroom that a caregiver needs to attend to at the same time.

Caregivers' challenges are therefore very numerous. These may include but not limited to challenges from the parents, children, colleagues, school management and environment. Early childhood educators' challenges are enormous and they include parents, partnership, and respect for cultural diversity, appropriate early intervention assessment, linking curriculum and assessment practices appropriately [79]. The activities of preschool teachers are more diverse and more demanding, thus in the Nigeria National Policy on Education [80], preschool teachers are saddled with different responsibilities such as from effecting a smooth transition from home to the school, providing adequate care and supervision, inculcating social norms, inculcating in the child the spirit of enquiry and creativity through play, teaching co-operation and team spirit, teaching rudiments of numbers, letter, colour, shapes, teaching good health habit. In most cases in the discharge of his/her duties, the caregiver is often confused and worried without knowing what to do, or which one to attend to. Hence they become anxious, depressed, vague, panicky and intimidated by their duty.

Caregivers faced a lot of challenges in the process of carrying out their duties and responsibilities, challenges from the children, parents, colleagues the school management, environment and community at large. This situation in most cases translates to psychological distress. Psychological stress has been widely studied

especially among medical undergraduate students [81], white-collar workers [82], homeless youth [83], medical workers [84], hospital nurses [85], and college students [86]. Studies have also been conducted on psychological distress among nursing students [87] and drug users [88-89].

Psychological distress have also been investigated among caregivers particularly of people with chronic obstructive pulmonary disease [90], patients with psychosis [91][92], patients with schizophrenia [93], cancer patients [94], symptomatic lung cancer patients [95], women with ovarian cancer [96], patients with lung cancer [97-98], and individuals with affective disorders [99]. Studies on psychological distress have also been done on caregivers of children with autism spectrum disorder [100-103] and children with asthma [104], children with a disorder of sex development [105-106]. However, not much has been done on caregivers of normal preschool pupils in Nigeria generally and in Ekiti State to be specific.

In spite of numerous works on psychological distress among various workers, the incident persists and has continually been noted. Whereas numerous studies have been conducted to determine various correlates of psychological distress, yet only few could be said about the relationship between job/work demand and psychological distress. Studies have however not looked into the roles of resilience and optimism in the relationship between work demand, and psychological distress among caregivers in Ekiti State. The focus of this study therefore was to examine the mediating roles of resilience and optimism in the relationship between work demand and psychological distress among preschool pupils' caregivers.

It was therefore hypothesised that there is a significant indirect effect of work demand on psychological distress through resilience and optimism. A model (Fig. 1) was therefore built to indicate the relationship among the study variables.

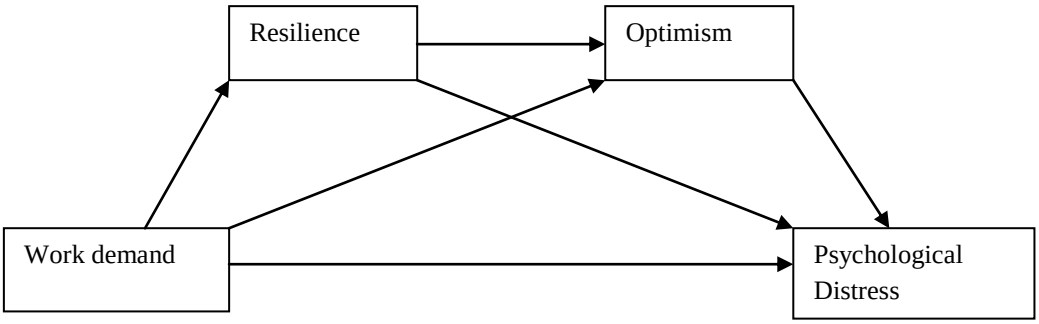

Figure 1: Conceptual model for the study

II. METHOD

2.1 Design

The descriptive survey research design type was adopted in this study because it allowed for direct investigation of a large sample with the use of questionnaire without manipulation of the independent variables.

2.2 Participants

A sample of 605 caregivers was chosen through proportional stratified random sampling among the 1576 caregivers in the 874 public and 702 private pre-primary schools in Ekiti State, Nigeria. All the 16 Local Government Areas in the State were used for the study. In each Local Government Area, 50% each of public schools and private schools were randomly chosen. In each school, two caregivers were randomly chosen. This gave a total sample size of 605.

2.3 Instruments

2.3.1 *Demographic Data Form*

The demographic data of respondents were collected using the DDF. These data were on sex, ownership of school, age, employment status, educational status, work experience,

2.3.2 *Kessler Psychological Distress Scale (K10)*

Psychological distress was assessed in this study using The Kessler Psychological Distress Scale (K10) developed to measure cognitive, affective, and behavioural symptoms of psychological distress which can be used to identify those in need of further assessment for anxiety and depression [107]. It is a widely used self-report measure of psychological distress designed to measure depressive distress.. The K10 consists of 10 items with a 5-point Likert scaling format ranging from 5 = 'All of the time', to 1 = 'None of the time'. Sample items include: "So nervous that nothing could calm you down" and "That everything was an effort". The total score ranges from 10 to 50 with the maximum score of 50 indicating severe distress whereas the minimum score

indicates no distress. Cronbach's alpha for the K10 (a measure of internal consistency reliability) is as high (.93) [108]. The brief questionnaire has been shown good construct and criterion validity being significantly associated with measures of mental health symptoms and disability as well as the frequency on consultations.

2.3.3 *Perceived Work Demand Scale (PWDS)*

Work demand was measured using the Perceived Work Demand Scale (PWDS). The scale was developed [109] to measure job demand. It is a 5-item self-report scale measuring how the employees perceived the demands placed on them by their works in their various organizations. It is rated on a 5 point Likert-type scale with responses ranging from strongly disagree (1) to strongly agree (5). Sample items include: "My job requires all of my attention". The scale has a reliability coefficient of .83. Cronbach's alpha. The score on this scale range between 5 at the minimum and 25 at the maximum.

2.3.4 *Connor-Davidson Resilience Scale. (CD-RISC)*

Resilience was assessed using the Connor-Davison Resilience Scale developed [110] as a measure of stress coping ability; as such could be an important instrument in the diagnosis of anxiety symptoms depression, and stress reactions. Items included in the scale were selected through a search of resilience literature. The Scale comprises of 25 items, each rated on a 5-point scale (0-4), with higher scores reflecting greater resilience as follows: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4). Sample items include: "Having to cope with stress can make me stronger." "I am able to adapt when changes occur" "Under pressure, I stay focused and think clearly". CD-RISC is a brief, self-rated measure of resilience that has sound psychometric properties [110].

2.3.5 *Life Orientation Test –Revised (LOT-R)*

Optimism was measured in this study using the 10- item Life Orientation Test - Revised (LOT-R) developed [111] to assess an individual's level of depositional optimism. Individual's indicated expectation about the future by rating the extent to which they think their future outcomes will be good or bad using a 5-point Likert type scale anchored by 0 = strongly disagree, 1 = disagree, 2 = neutral, 3 = agree, and 4 = strongly agree. Sample items include: "I'm always optimistic about my future." "I expect more good things to happen to me than bad". The LOT-R was scored as measuring a unidimenstional construct of the 10 items, 3 items measure optimism, 3 items measure pessimism, and 4 items serve as fillers. Cronbach's alpha for the entire 10 items of the scale was .78, suggesting the scale has an acceptable level of internal consistency.

2.4 Procedure

The researchers visited each of the selected schools and explained the study mission to the head teacher/school authority, and obtained permission to administer the instruments on the caregivers. Thereafter, the caregivers were met in their classrooms during break time. The purpose of the study was again explained with an assurance of the confidentiality of their responses. They were informed that they are free to decide whether to participate in the study or not. Caregivers who willing chose to participate were administered with the instruments. The instruments were administered as a battery by the researchers. The researchers waited for the participants to complete the questionnaires which were collected immediately after completion. Data were analyzed using both descriptive and inferential data analyses. Regressions Analysis and Pearson Product Moment Correlation were used to test the hypotheses.

III. RESULTS

3.1 Preliminary Analysis of Data

Initial analysis was conducted on the data to determine the range, mean, and standard deviation of the scores of the variables of the study. Pearson Product Moment Correlation was also conducted. Results are as presented in Tables 1 and 2.

Table 1: *Descriptive Statistics of range, mean, standard deviation, skeweness and kurtosis of the scores of the study variables*

	Range	Min.	Max.	Mean	Std. Dev.	Skewness(SE)	Kurtosis(SE)
Psychological Distress	61.00	30.00	91.00	43.9223	4.42699	2.111(.099)	23.611(.198)
Work Demand	16.00	5.00	21.00	15.2545	3.23341	-1.115(.099)	1.051(.198)
Resilience	77.00	11.00	88.00	62.4884	17.88810	-.698(.100)	-.559(.199)
Optimism	19.00	5.00	24.00	14.1669	2.92402	-.087(.099)	.074(.198)

Table 2: *Correlations Matrix of the relationship among study variables*

	Psychological Distress	Work Demand	Resilience	Optimism
Psychological Distress	1	.071	.263**	.010
Work Demand		1	.372**	.073
Resilience			1	.036
Optimism				1

** $p < .001$

The results in Table 1 revealed significant relationships among the study variables. Psychological distress was found to be related to resilience (r = .263; p <.001) but not to optimism (r = .010; p >.05) and work demand (r = .071; p >.05). Optimism was found not to be significantly related to work demand (r = .073; p >.05) and resilience (r = .036; p >.05). However, work demand was found to be significantly and positively related to resilience (r = .372; p <.001).

Table 3: *Independent t-test statistics of gender differences in the scores of the study variables*

	Sex	N	Mean	Std. Dev.	Statistics
Psychological Distress	Male	166	43.6325	3.65363	t = -.990; p = .323
	Female	439	44.0319	4.68544	
Optimism	Male	166	14.1145	2.69098	t = -.271; p = .786
	Female	439	14.1868	3.01014	
Work Demand	Male	166	15.7410	3.11775	t = 2.283; p = .023
	Female	439	15.0706	3.26067	
Resilience	Male	165	64.4061	16.65134	t = 1.618; p = .106
	Female	437	61.7643	18.29942	

The results in Table 3 showed that there are no significant gender differences in caregivers' psychological distress ($t_{(603)}$ = .990; p > .05), optimism ($t_{(603)}$ = .271; p > .05), and resilience ($t_{(603)}$ = 1.618; p > .05) but male caregivers reported greater work demands than the female caregivers ($t_{(603)}$ = 2.283; p > .05).

3.2 Test of Mediating Effects

Table 4: *Regression Coefficients, Standard Errors, and Model Summary Information for the Serial Mediation of Optimism and Resilience Work Demand and Psychological Distress of Preschool Pupils' Caregivers*

		Consequent								
		M_1 (Resilience)			M_2 (Optimism)			Y (Psychological Distress)		
	Antecedent		*Coeff*	*SE*		*Coeff*	*SE*		*Coeff*	*SE*
X	Work Demand	a_1	2.056***	.209	a_2	.062	.040	c'	-.043	.058
M_1	Resilience		-	-	d_{21}	.002	.007	b_1	.068***	.010
M_2	Optimism		-	-		-	-	b_2	.005	.060
	Constant	i_{m1}	31.126***	3.262	i_{m2}	13.121***	.616	i_Y	40.261***	1.193
	Model Summary		R^2 =.139; $F_{(1,600)}$ = 96.618***			R^2= .005; $F_{(2,599)}$ = 1.597			R^2 =.070; $F_{(3,598)}$ = 15.063***	

*p<.05; **p<.01; ***p<.001*

Results in Table 4 showed that there was a significant influence of work demand on resilience of caregivers (*Coeff* = 2.056; p < .001). There was no significant influence of work demand on optimism of caregivers (*Coeff* = .062; p > .05). There was also no significant direct influence of work demand on psychological distress of caregivers (*Coeff* = -.043; p > .05). Results also indicated no significant influence of resilience on optimism (*Coeff* = .002; p > .05). There was a significant influence of resilience on psychological distress of caregivers (*Coeff* = .068; p < .05). This result showed that there was a significant indirect effect of resilience on work demand and psychological distress when optimism was kept constant. This implies that caregivers who differ in one unit of work demand are estimated to differ by .068 units in their reported level of psychological distress as a result of the tendency for caregivers under relatively more work demand to feel more resilient which in turns would translate to greater psychological distress.

There was no significant influence of optimism on psychological distress of caregivers (*Coeff* = .005; p > .05). This result showed that there was no significant indirect effect of optimism on work demand and psychological distress when resilience was kept constant. This implies that caregivers who differ in one unit of

work demand are estimated to differ by .005 units in their reported level of psychological distress as a result of the tendency for caregivers under relatively more work demand may not feel more optimistic which in turns would not translate to greater psychological distress.

The result is graphically presented in the statistical model in Figure 2

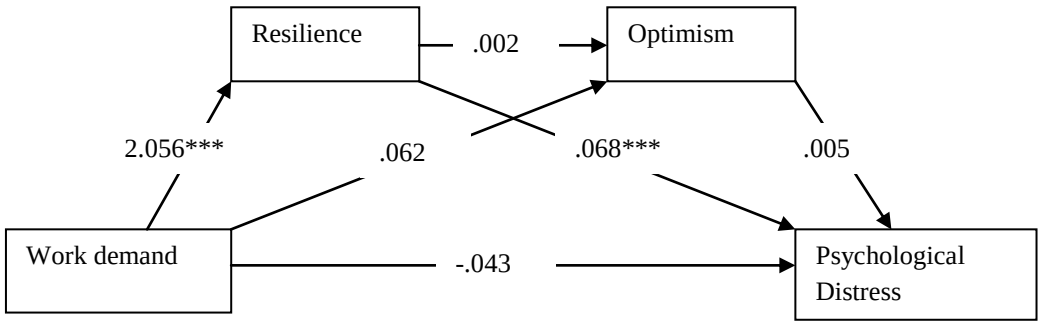

Figure 2: Statistical Model for Mediation of Optimism and Resilience Work Demand and Psychological Distress of Caregivers

**p < .05; **p < .01; ***p < .001*

Table 5: *Indirect effect(s) of work demands on psychological distress*

	Effect	Boot SE	BootLLCI	BootULCI
Total:	.140	.030	.085	.208
Ind1 :	.140	.030	.084	.206
Ind2 :	.000	.001	-.002	.002
Ind3	.000	.004	-.007	.012

Indirect effect key

Ind1 : work demand -> resilience -> psychological distress

Ind2 : work demand -> resilience -> optimism -> psychological distress

Ind3 : work demand -> optimism -> psychological distress

IV. DISCUSSION

This study examined the mediating roles of resilience and optimism between work demand and psychological distress among preschool pupils' caregivers. First, preliminary analysis on the relationship among the study variables was carried out. Analyses revealed that there is a significant and positive relationship between psychological distress and resilience but not between psychological distress and optimism, and between psychological distress and work demand.

The finding of this study in connection to the relationship between psychological distress and resilience however contradicted [112] who found a significant but negative relationship between psychological distress and resilience. It also contradicted that of [113] who found that people with more psychological distress showed less psychological resiliency, in other words, that there is a negative relationship between psychological distress and psychological resilience. The finding further disagreed with that of [114] who indicated that resilience was negatively related to psychological distress and that of [46] who found that resilience was negatively associated with psychological distress. High resilience was associated with a reduction in depression [52]. This implies that resilience was negatively related to psychological distress since depression is a significant element of psychological distress. The findings of the present study is however not surprising. In fact, it could be said to be revealing. Being resilient doesn't mean that a person doesn't experience difficulty or distress. Various factors contribute to resilience. These include factors such as personal mastery, intellectual functioning, cognitive adaptability, attachment, spirituality, change in brain structure, neurobiological, system, etc. The result might be attributed to the complexity in the nature of resilience.

The results also revealed that there is no significant and negative relationship between psychological distress and optimism. Optimism was found to be a significant and negatively related to decision related distress [115]. A negative correlation between optimism and neuroticism has also been observed [116]. Logically, optimistic individuals are expected to have greater hope and consequently lower levels of psychological distress. In that case, a negative correlation is expected between optimism and psychological distress.

The results again revealed no significant relationship between psychological distress and work demand. The result of this study support the findings in the study carried out by [117] who did not found any relationship between psychological demand and psychological distress but negated that of [19, 118-120] who variously observed that psychological demands were significantly related to psychological distress. Also [121] found a

relationship between physical demand and psychological distress. The finding of this study is not surprising in that work demand can yield either positive or negative outcomes for the individual. High work demands may not automatically produce negative consequences for an individual. On the contrary high demands can help an individual develop new skills if work organization allows for decisional authority and social support. In essence, organisational characteristics and variables may have significant role to play in work demand and psychological distress; such organisational characteristics and variables may need to be further investigated.

The results showed no total effect of work demand on psychological distress. This finding contradicted the findings in the study of [21] which found that job demand had a significant positive effect on psychological distress. This finding also contradicted [25] who found that work demand can lead to psychological strain in the absence of adequate resources and Job Demand –Control Model which posited that work demands exert considerable stress on workers [26]. Other factors like that could have confounded the effect of work demand on psychological distress and these factors could have been responsible for this. Work experience, status in the organization, motivational factors and social support could also have been contributing to the observed effect.

Finding of this study showed no significant direct effect of work demand existed on psychological distress among caregivers independent of resilience and optimism. Notwithstanding the importance of work factors in causing mental health problems in the workplace, in recent decades, researchers have come to the conclusion that mental distress at work is not solely the direct consequence of a stressor-strain relationship [119]. In their 2006 study, [117] it was concluded that only 11% of the variation in distress was associated with work factors alone, while 21% of the variation was associated with personal factors, such as personality, family, social network, etc. We can conclude from these findings that different characteristics may act as a buffer, which makes certain individuals more or less likely to be affected by a stressor in their environment. Of the different potential individual characteristics identified by researchers, personality has been the most pervasively retained as a moderating factor in this stressor-strain relationship [122].

The results showed that work demand indirectly predicted psychological distress through resilience but not through optimism. This finding corroborated [60] who discovered that work stress (a component of work demands) indirectly predicted psychological distress. Resilient individuals have also been noted to perceive stressful events in less threatening ways and can cope with or adjust to adverse experiences more readily [123]. The influence of optimism in the indirect prediction of psychological distress by work demand was not as strong as the influence of resilience. This finding also contradicted [124] who asserted that effective coping strategies by optimism when dealing with stress. By this finding resilience and optimism have been found to differently mediate between work demand and psychological distress. It is also asserted that there are instances in which optimism may positively mediate the effect of work demand on psychological distress and instances when it may have a negative mediating effect [64].

V. CONCLUSION

Based on the findings of this study, it was concluded that resilience would mediate the relationship between work demand and psychological distress; however optimism has no significant mediating role between work demand and psychological distress of caregivers. Both resilience and optimism will not significantly mediate between work demand and psychological distress of preschool pupils' caregivers

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