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ORIGINAL ARTICLE

MENTAL HEALTH STATUS OF WOMEN WITH MULTIPLE ROLES IN A TERTIARY INSTITUTION IN IBADAN, NIGERIA.

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Abstract

Background: Worldwide, women play a central role in household health and economic well-being, and the multiple roles they undertake can affect psychological health. This study assessed the mental health status of women with multiple roles working in a tertiary institution.

Methods: A cross-sectional study was conducted among 451 female staff at The Polytechnic, Ibadan, Oyo State, Nigeria, using total sampling of the accessible female staff population. Eligible participants had at least one year of service; pregnant women, those on student industrial work experience, or serving as corps members were excluded. Data was collected from September to October 2016 using a self-administered, semi-structured questionnaire. Mental health status was the primary outcome assessed with the SF-12 tool. Data was analyzed using IBM SPSS version 23, including univariate, bivariate, and multivariate methods. Ethical approval was obtained for the study.

Results: Respondents had a mean age of 38.7 years (± 10.7); 59.6% were under 40, and 68.9% were married. Most (84.4%) held multiple roles, with 62.4% reporting average or better mental health outcomes. Multivariate analysis showed that being divorced/separated (OR = 0.18; 95% CI = 0.07-0.47; $p = 0.001$), widowed (OR = 0.25; 95% CI = 0.11-0.57; $p = 0.001$) and not having domestic care support (OR = 0.25; 95% CI = 0.13-0.47; $p < 0.001$) lowered the odds of above-average mental health status.

Conclusion: Marital status and social support were key predictors of mental health. Interventions should prioritize strengthening social support networks and providing targeted assistance for women with multiple roles.

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INTRODUCTION

Mental health refers to a state of well-being in which an individual realizes his or her own abilities, can cope with the everyday stresses of life, can work productively and can contribute to his or her community.¹ Mental health is essential for the well-being and effective functioning of individuals and communities. It is especially important for women, children, and families' well-being.² Globally, mental health disorders affect an estimated 450 million people, with one in every eight people living with a condition: anxiety being the most prevalent and difficult to manage.³ Women experience a disproportionate burden of depression and anxiety, being twice as likely as men to be affected. In Nigeria, depression is the leading cause of death among women,⁴ mirroring patterns in countries like Bangladesh, where these conditions are the most prevalent mental health issues for women.⁵ A woman's mental health is deeply shaped by her social context and the multiple roles she occupies as a daughter, wife, mother, caregiver, professional, and community member, each of which influences her quality of life.⁶ At tertiary institutions, women often juggle academic responsibilities alongside administrative duties, family obligations, and social expectations, leading to increased psychological pressure.⁷ Rising female participation in Nigeria's paid workforce, mostly driven by improved educational attainment, is modifying traditional family structures. Dual-income households, as opposed to the traditional single-income structure, are increasingly common, heightening role conflicts from competing work and family demands amid time constraints.⁸ Multiple roles refer to simultaneous engagement in parenting, caregiving, marital and employment roles. Traditionally, women were expected to be homemakers, whereas men were expected to be the primary breadwinners; however, the role of women has evolved to include wife, mother, and employee. Such women serve an essential, yet often unacknowledged, purpose: keeping families healthy and supporting local economies.⁹ Despite relatively low female labour force participation in some LMICs, women's involvement across multiple roles continues to rise. In Nigeria, female labour force participation increased from 46.9% in 2022 to 48.4% in 2024,

with comparable figures reported in Bangladesh (44.2%), India (32.8%), and Latin America and the Caribbean (51%).¹⁰ The health effects of multiple roles may be beneficial or detrimental. For instance, adverse outcomes are often linked to chronic or prolonged stress, which is a risk factor for both physical and mental conditions, including hypertension, diabetes, ulcers, depression, anxiety, and other forms of psychological distress.² Gender roles further influence mental health outcomes, as women are more likely to experience depression and anxiety than men, with the incidence of major depression being 1.7 times higher among women.⁶ Long working hours, particularly exceeding 40 hours per week, have been associated with increased risks of hypertension, depressive symptoms, anxiety, sleep disorders, and cardiovascular disease.^{11,12} This highlights the ongoing struggle many women endure to balance paid jobs with family demands.¹³ Previous studies from other countries on women's multiple roles report mixed mental health outcomes, with evidence of both protective and harmful effects. However, few empirical studies have examined women's multiple roles and their mental health implications in Nigeria, as existing research has largely focused on related issues such as job stress and work-family conflict among professional groups like academics and healthcare workers.^{14,15} Consequently, there is limited data on how specific combinations of roles influence women's mental health outcomes. This study, therefore, aimed to assess the different types of multiple roles undertaken by women in the polytechnic and examine their association with mental health status. Specifically, it sought to determine the prevalence and types of multiple role involvement among women in the institution, evaluate their mental health status, and identify sociodemographic and contextual factors associated with the mental health outcomes of women engaged in multiple roles. The outcome of this study may inform recommendations for policies that are favourable to women in multiple roles.

METHODS

This descriptive cross-sectional study was conducted at The Polytechnic, Ibadan, Oyo State, Nigeria, between September and October 2016.

Table 1: Socio-demographic characteristics of respondents (N = 436)

Characteristics	Frequency (n)	Percentage (%)
Age distribution in years		
< 40 years	260	59.6
≥ 40 years	176	40.4
Marital Status		
Single	68	15.6
Married	299	68.6
Divorced/Separated	26	6.0
Widowed	43	9.8
Level of education		
No formal education	9	2.1
Primary	16	3.7
Secondary	105	24.1
Tertiary	306	70.1
Women who have care support		
Yes	134	30.7
No	302	69.3
Hours of work per week		
≤ 40 hours	395	90.6
> 40 hours	41	9.4

The institution was established in 1970 and has been known to offer a wide range of courses, including making valuable contributions to social and economic development. The Polytechnic had a total of 1,316 staff, including 381 full-time academic staff, 149 part-time staff, and 786 non-academic staff. Of these, 503 were female, and 813 were male.

Population

The study included 451 female staff (permanent and casual) at Polytechnic Ibadan, who were present during data collection, employed at the institution for at least one year, and willing to provide informed consent. Pregnant women, those in the students' industrial work experience scheme (SIWES), or National Youth Service Corps members assigned primarily to the polytechnic were excluded from the study. Staff employed by the Oyo State government held permanent positions, while those employed by the Polytechnic, Ibadan, were referred to as casual staff.

Sample size and Sampling

The sample size was determined using Cochran's formula.

$n = Z\alpha^2pq / d^2$, where: $Z\alpha$ is the standard normal deviate for a 95% confidence interval, and the

value is taken to be 1.96, P is the prevalence of the subject of study from the previous study, which is 0.62,¹⁶ $q = 1 - p = (1 - 0.62) = 0.38$, and d is the degree of precision or sampling error set at a 0.05 level of significance.

Substituting, we have:

$$n = (1.96^2 \times 0.62 \times 0.38) / 0.05^2$$

$$n = 3.8416 \times 0.62 \times 0.38 / 0.0025 = 362.03$$

To account for non-response, the sample size was increased by 10%, yielding a minimum total sample size of 398 respondents. A total of 451 participants consented to participate in the study, with 436 questionnaires analysed. The study participants were selected using a total sampling technique, which involved recruiting every eligible female worker (all female staff who met the inclusion criteria) rather than a subset. The study instrument was a pre-tested, self-administered, semi-structured questionnaire consisting of 3 sections: Socio-demographic characteristics of the respondents, Role occupancy, and mental health status of respondents. The mental health status of respondents was assessed using the SF-12 questionnaire, which comprises eight domains,¹⁷ which has been validated in Nigeria.¹⁸ However, only the four domains that contribute to the Mental Health component were

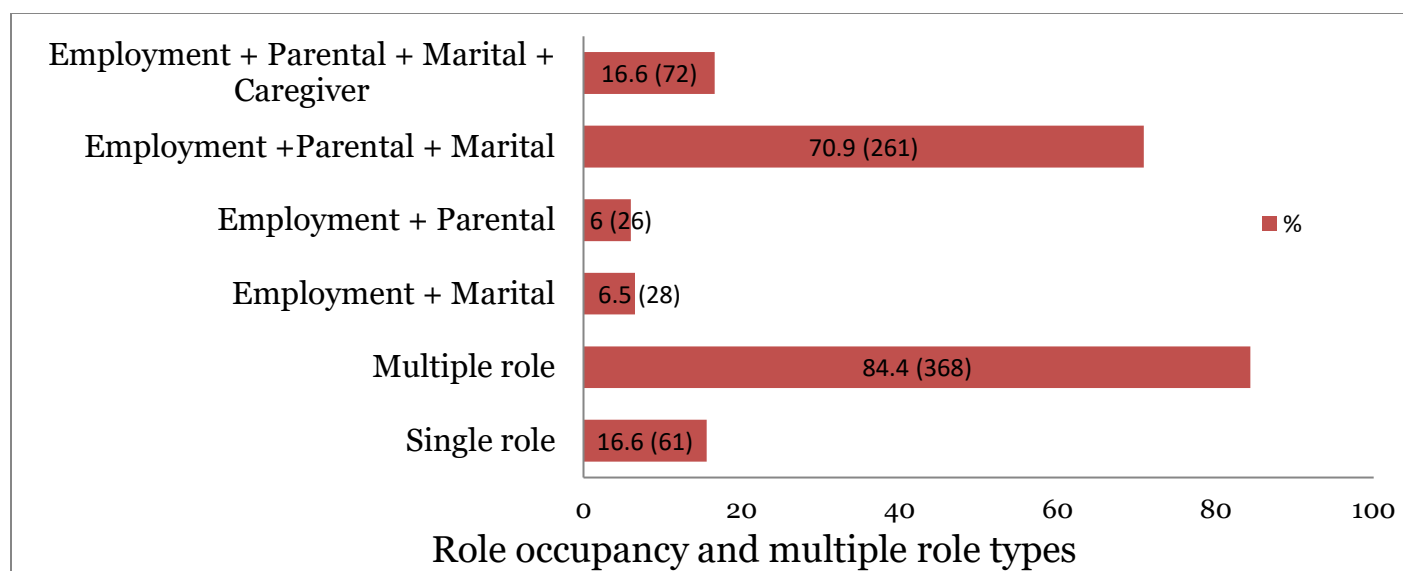


Figure 1. Distribution of role combinations and role occupancy among respondents

used in this study. These subdomains include role limitation due to emotional problems, social functioning, vitality, and mental health (psychological distress and psychological well-being). Respondent's score was entered, coded, scored (four items out of the twelve items needed reverse scoring to ensure that a higher item value indicates better health) and computed to raw scale after which the raw scale scores were transformed to 0 to 100 scale, where zero is seen as the lowest level of overall health status and 100 as the highest level of overall health status.

The dependent variable was the mental health status of working women with multiple roles.

The independent variables were age, marital status, types of multiple roles, having domestic care support, and weekly hours of work.

Operational definition of variables

Age is the chronological time elapsed since an individual's birth, typically measured in years, and was categorised into ≤ 40 years and > 40 years.

Domestic care support includes those who have one or more people helping with domestic chores, examples include: spousal support, parental support, in-law support, and support from siblings or employing a nanny/full-time housekeeper.

Level of education is the last level of formal education completed by the respondents, categorised as primary, secondary, and tertiary education.

Role occupancy: Single role involvement by respondents in this study included those involved in only an employment role, while multiple role involvement included one or more additional roles, such as marital, parental, and caregiving roles.

Mental health status, with a mean score of 50, was used as a cut-off point, with scores above and below the mean grouped as above average and below average, respectively. Above average indicates good health, while below average indicates poor health.

Data analysis

Data were analysed using SPSS software, including univariate, bivariate, and multivariate analyses. Univariate analysis was used to describe the socio-demographic characteristics of each variable, presenting frequency and proportion distributions. Bivariate analyses were conducted using the Chi-Square test to assess the relationships between each independent variable (age, marital status, types of multiple roles, having domestic care support, and hours of work per week)

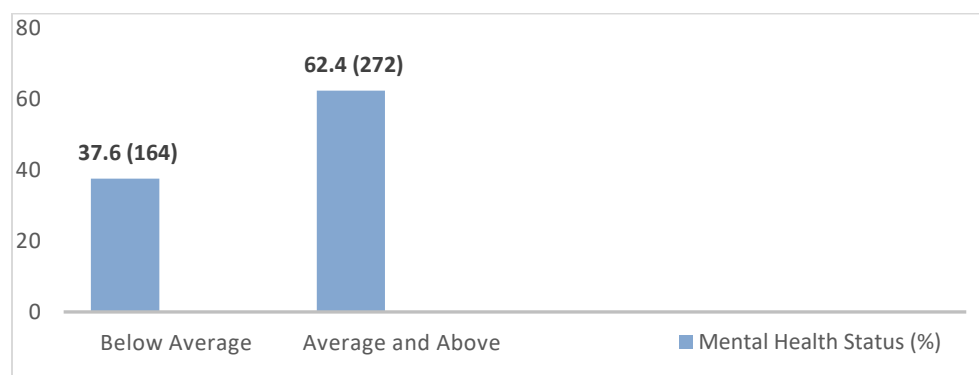


Fig 2. Mental health status of respondents

and the dependent variable (mental health status among working women with multiple roles). Multivariate analysis was conducted using logistic regression to identify independent predictors that significantly affect the mental health status of working women with multiple roles. Ethical approval was obtained from the Oyo State Research Ethical Review Committee before the commencement of the study, and the study aligns with the Helsinki Declaration (reference number AD/13/479/181). The respondents were informed of the research purpose, and written informed consent was obtained from each respondent before the questionnaire was administered. Respondents were informed of voluntary participation and the right to withdraw at any time during the study, with no consequences. Data collected was kept anonymous, identified only by serial numbers, and kept confidential on a password-protected computer.

RESULTS

Table 1 shows that the age distribution of respondents ranged from 22 to 63 years, with a mean age of 38.7 ± 10.7 . The majority (84.2%) of respondents were full-time staff, and 88.3% were in a monogamous family type, with 70% having completed tertiary education. Most of the respondents, 368 (84.4%), were involved in multiple roles, with 70.9% women who combined

3 roles, namely employment, parental and marital roles, while 61 (16.6%) women combined employment, marital, parental and caregiving roles (Fig 1). Almost two-thirds, 272 (62.4%) of respondents had above-average mental health (Fig. 2). Tables 2 & 3 show the association between socio-demographic characteristics, work-related factors and mental health status. Age of respondents ($p = 0.006$), marital status ($p < 0.001$), having domestic help ($p < 0.001$), and types of multiple roles ($p = 0.003$) were statistically significant for the women's mental health status. Meanwhile, the levels of education ($p = 0.710$), role occupancy ($p = 0.502$), and hours of work per week ($p = 0.677$) were not statistically associated with the women's mental health. All variables found to be associated with mental health outcomes in the bivariate analysis were entered into the logistic regression model to predict the odds of mental health outcomes among respondents (Table 4). Divorced/separated and widowed respondents had significantly lower odds of average or better mental health than single respondents (OR = 0.18; 95% CI: 0.07 to 0.47; $p = 0.001$ and OR = 0.25; 95% CI: 0.11 to 0.57; $p = 0.001$, respectively). In addition, women who did not have domestic care support were more likely to have below-average mental health status compared to women who had domestic care support (OR=0.25; 95% CI: 0.13 to 0.47; $p < 0.001$).

Table 2: Association between socio-demographic characteristics and mental health status

Variable	Mental health status		p-value
	Below average n (%)	Average & above n (%)	
Age group (years)			
< 40 years	76 (30.4)	174 (69.6)	0.006*
≥40 years	89 (47.9)	97 (52.1)	
Marital status			
Single	17 (25)	51 (75)	<0.001*
Married	107 (35.8)	192 (64.2)	
Divorced/Separated	20 (76.9)	6 (23.1)	
Widowed	25 (58.2)	18 (41.8)	
Level of education			
No formal education	3 (33.3)	6 (66.7)	0.710
Primary	7 (43.7)	9 (56.3)	
Secondary	48 (45.7)	57 (54.3)	
Tertiary	117 (38.2)	189 (61.8)	

*Statistically significant

DISCUSSION

This study assessed the mental health of women with multiple roles working in a tertiary institution in Oyo State. Findings revealed that 37.6% of respondents had a below-average mental health status, and being divorced or widowed, as well as lacking domestic care support, were significant independent predictors of mental health outcomes. Most (84.4%) of the women in this study held multiple roles, predominantly combining employment, parenting, and marital responsibilities. This finding is consistent with a study in Korea, which aimed to investigate the effects of multiple roles on depressive symptoms in women. However, the prevalence reported was slightly lower (79.6%), with the women similarly predominantly combining three roles.¹⁹ The Korean study's slightly lower prevalence may stem from its larger sample size (>6,000 participants) and more diverse population. It also reported a lower proportion (35%) of women combining three roles while capturing those with up to five roles, highlighting women's increasingly multifaceted roles, as seen in prior research.²⁰ The burden of handling overlapping roles can lead to excessive workload,

which has well-documented negative implications for women's mental health,²⁰ including in role strain and enhancement theories.²¹ While the bivariate analysis suggested an association between the type of multiple roles and mental health, this relationship did not persist in the multivariate analysis, indicating that the psychological impact of role accumulation is likely influenced or mitigated by other contextual factors, such as support systems and marital status, consistent with literature on role strain and role enhancement.²² However, holding multiple roles was associated with poor psychological health in a study among Algerian women.²⁰ In contrast, the Korean study found a negative association between multiple roles and psychological distress: depressive symptoms decreased as role number increased, with women in no role showing higher depression.¹⁹ The conclusion that multiple roles positively affect women's mental health rests on employment's benefits, job privileges, status, power, position, and economic independence, which elevate status, boost self-worth, and enhance psychological well-being, regardless of role strain or family problems.²³

Table 3: Association between work-related factors and mental health status

Variables	Mental health status		p-value
	Below average	Average & above	
	n (%)	n (%)	
Role occupancy			
Single role	23 (33.8)	45 (66.2)	0.502
Multiple roles	141 (38.3)	227 (61.7)	
Hours of work per week			
≤ 40 hours	76 (19.2)	319 (80.8)	0.677
> 40 hours	9 (22.0)	32 (78.0)	
Having a form of domestic help			
Yes	21 (15.7)	113 (84.3)	<0.001*
No	136 (45)	166 (55.0)	
Types of multiple roles			
Employment + marital role	10 (41.7)	14 (58.3)	0.003*
Employment + parenting role	11 (50.0)	11 (50.0)	
Employment + marital + parenting role	88 (33.7)	173 (66.3)	
Employment + marital + parenting + care giving role	22 (36.1)	39 (63.9)	

* Statistically significant

However, the psychological effects associated with juggling multiple roles for many women cannot be ignored, highlighting the need for support to reduce the psychological burden of handling these roles. Divorced or separated status and the presence of domestic care support emerged as significant predictors in the multivariate analysis. Although age was significant in bivariate analysis (with younger women under 40 showing better mental health), the association was not retained in the multivariate model. The shift suggests the presence of confounding factors. For example, younger women may experience protective factors such as more workforce participation, better physical health, and fewer caregiving and marital demands, which may influence the unadjusted analysis but diminish once other variables are controlled for. Nevertheless, existing literature indicates that as ageing sets in, accumulated stress and role strain may negatively impact well-being over time.² In the case of marital status, divorced/separated and widowed women were significantly more likely to report poorer mental health than their single counterparts. Consistent with existing literature, married women show better psychological health

than unmarried women, with divorced and widowed individuals showing significantly poorer outcomes.²⁴ These findings suggest that marital stability may protect women's psychological well-being, as previously married women (divorced/widowed) may experience elevated depressive symptoms, anxiety, and distress due to the loss of spousal support, unlike never-married singles who retain broader networks.^{24,25} Marital dissolution or partner loss often introduces emotional strain, financial hardship, social isolation, and increased caregiving responsibilities, all of which may pose substantial mental health risks.²⁶ Notably, access to domestic care support emerged as a strong protective factor of mental health status, with women lacking such support showing higher odds or reporting poor mental health compared to those with domestic assistance. This underscores the importance of practical and emotional support in managing daily life stresses, as support with domestic responsibilities can reduce stress levels and improve coping capacity among working women.^{27,28} The absence of adequate support, especially in contexts where women juggle both work and household demands, can exacerbate

Table 4: Predictors of average and above mental health status

Table 4. Predictors of average and above mental health status				
Variable		95% CI		p-value
	OR	Lower	Upper	
Age				
<40 years (ref)	1			
40 years and above	0.92	0.49	1.74	0.790
Marital status				
Single (ref)	1			
Married	0.60	0.33	1.09	0.091
Divorced/Separated	0.18	0.07	0.47	0.001*
Widowed	0.25	0.11	0.57	0.001*
Types of multiple roles				
Employment + marital role (ref)	1			
Employment + parenting role	1.01	0.20	5.24	0.990
Employment + marital + parenting role	1.97	0.71	5.47	0.196
Employment + marital + parenting + care giving role	2.13	0.60	7.52	0.243
Having domestic care support				
Yes (ref)	1			
No	0.25	0.13	0.47	<0.001*

*statistically significant

ref Reference variable

psychological distress.²⁹ Educational level and working hours, though often considered influential factors for well-being, were not statistically significant predictors of mental health in this study. Most respondents worked fewer than 40 hours per week, consistent with reports that married working women often maintain regular working hours.¹¹ However, the lack of association between working hours and mental health suggests that the quality and availability of relational and domestic support may be more influential than the sheer volume of work itself.¹¹

LIMITATIONS AND STRENGTHS

The cross-sectional design limits causal inference between variables such as multiple role engagement and mental health outcomes. However, the robust total population sample of 451 eligible female staff at The Polytechnic Ibadan, combined with validated scales and multivariate regression controlling for confounders, reduces selection bias, strengthens the reliability and contextual relevance

of findings on key predictors, such as marital status. Another limitation is potential self-report bias in measuring mental health, as participants may have been influenced by social desirability or recall challenges. Nonetheless, the combined bivariate and multivariate analyses offer a more holistic understanding of how socio-demographic factors shape women's mental health, offering actionable insights for Nigerian workforces. A third limitation is that the study was conducted in a single institution, potentially limiting generalizability to other settings. However, this setting's representation of public-sector dynamics has meaningful implications for similar educational environments.

IMPLICATIONS FOR POLICY ACTION AND FUTURE RESEARCH

Nigerian polytechnics should consider implementing family-responsive workplace policies like flexible hours, paid family leave, and

on-site childcare to support female staff balancing professional and domestic responsibilities.

Nigerian polytechnics should consider implementing family-responsive workplace policies like flexible hours, paid family leave, and on-site childcare to support female staff balancing professional and domestic responsibilities. Integrating routine mental health screenings and supervisor training on role conflict can help reduce psychological distress. At the policy level, there could be collaboration with the Ministries of Education and Labour to develop national guidelines that promote supportive work environments, including subsidised domiciliary care. Future research should conduct longitudinal studies on policy impacts, comparative analyses across institutions, and qualitative exploration into marital stressors.

CONCLUSION

Sociodemographic and support-related factors were important influences on the mental health of female employees at The Polytechnic, Ibadan. Although the different combinations of multiple roles did not independently predict poor mental health, their cumulative demands appeared to exert a substantial combined effect. Being divorced, separated, or widowed, as well as lacking domestic care support, emerged as strong determinants of poorer mental health outcomes. These circumstances likely intensify both emotional strain and practical burdens that might otherwise be alleviated through stable partnerships or reliable support systems. These findings highlight the need

for institutional responses that acknowledge the realities of women's lives. Workplace policies that address gendered duties, such as flexible work schedules, paid family leave, on-site childcare, and inclusive organisational practices, may promote more supportive environments. Such interventions could minimise role stress, improve psychological well-being, and contribute to larger efforts to reduce the burden of mental health issues in Nigeria.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

CONTRIBUTIONS TO A JOINT PUBLICATION

All authors contributed substantially to the work. Authors OCU and OAA conceived the study and designed the methodology. OAA collected the data, and OCU, OOO and OAA conducted the data analysis. Authors OSL, PAG, OOO, and EAO interpreted the results and drafted and reviewed the manuscript. All authors approved the final version and submission of the manuscript.

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