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The Other Side of the Ward: Stress among Non-Clinical Staff in Psychiatry

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Abstract | **Original Research Article**

Background: Non-clinical personnel are essential to the functioning of psychiatric institutions but are often excluded from mental health research. While healthcare professionals are widely studied for occupational stress and psychological distress, non-clinical staff may be similarly exposed to institutional stressors without adequate attention. ***Aims:*** Assess the prevalence of perceived occupational stress, anxiety and depressive symptoms, and insomnia among non-clinical staff in a psychiatric hospital setting, and to examine their associations with sociodemographic characteristics, occupational factors, and attitudes toward mental health. ***Material and methods:*** A cross-sectional study was conducted in April 2025 among 46 non-clinical staff at Ar-Razi Psychiatric Hospital (Rabat, Morocco). Participants completed a questionnaire including sociodemographic and occupational data, psychiatric history, and standardized psychometric scales measuring stress, anxiety-depression, insomnia, and mental health attitudes. ***Results:*** High perceived stress was reported by 54.3% of participants. Clinically significant anxiety and depressive symptoms were present in 30.4%, while no cases of clinical insomnia were identified. Perceived stress was strongly correlated with anxiety-depressive symptoms and moderately with insomnia severity. Female gender was associated with higher stress and anxiety levels. No associations were found with exposure to aggression, education level, or attitudes toward mental illness. Underreporting of psychiatric history and substance use may reflect stigma. ***Conclusion:*** Non-clinical staff in psychiatric settings report considerable psychological distress, particularly among women. These findings highlight the importance of inclusive mental health strategies that extend beyond clinical roles and call for further research into institutional and cultural stressors affecting this overlooked workforce.

Keywords: Occupational health, psychological distress, cross-sectional survey, Morocco, non-medical staff, psychiatric institutions.

INTRODUCTION

Occupational stress and mental health issues are increasingly recognized as major public health concerns across various professional settings. In healthcare, and especially in psychiatry, the emotional demands of working with complex mental illnesses, patient aggression, and high workloads contribute to elevated risks of psychological distress and burnout (Maslach C *et al.,* 2001; Stansfeld S *et al.,* 2006). While extensive research has focused on clinical staff such as physicians, nurses, and psychologists non-clinical personnel remain largely overlooked in mental health research (Johnson J *et al.,* 2018).

Non-clinical staff, including administrative, maintenance, and security personnel, play a crucial role in the day-to-day functioning of psychiatric institutions. They often share the same stressful environment as clinical teams but without equivalent professional support or training to manage emotional or psychological burdens. Existing literature suggests that support staff may face exposure to similar stressors, including workplace violence, emotional labor, and institutional stigma (Fute M *et al.,* 2015; Tripodi D *et al.,* 2022) yet their mental health outcomes are poorly documented. This invisibility in research contributes to a lack of targeted interventions or policy recognition for their needs (Al-Turki HA *et al.,* 2010).

In low- and middle-income settings such as Morocco, data on occupational stress among non-clinical healthcare staff are particularly scarce. Understanding their mental health status is essential to developing inclusive well-being strategies in psychiatric care.

The present pilot study aims to assess the prevalence of perceived stress, anxiety and depressive symptoms, and insomnia among non-clinical staff in a Moroccan psychiatric hospital and to explore potential associations with sociodemographic and workplace-related factors.

MATERIAL AND METHODS

1. Survey development

A cross-sectional survey was designed specifically for this study and deployed using the Vercel platform. The survey was developed in both French and Arabic, with each version including an optional audio playback feature to accommodate participants with limited literacy. The survey could be self-administered online or, in cases of digital inaccessibility or illiteracy, conducted through structured individual interviews led by trained personnel.

The final instrument included three sections:

1. Sociodemographic and occupational data including age, gender, marital status, number of children, educational level, job type, weekly working hours, shift work status, frequency of interaction with psychiatric patients, and history of verbal and physical aggression in the workplace.
2. Personal and family psychiatric history
3. Standardized psychometric instruments, detailed below.

The use of audio-enhanced multilingual digital forms and optional face-to-face administration aimed to reduce selection bias and increase inclusivity.

2. Recruitment and participants

All non-clinical personnel employed at Ar-Razi Psychiatric Hospital were eligible. This included administrative, maintenance, security, and technical support staff. Exclusion criteria included refusal to participate or inability to provide informed consent.

Participants were recruited over a two-week period in April 2025 via internal announcements and direct outreach. Informed oral or written consent was obtained from all respondents. A total of 46 non-clinical staff members completed the survey. The overall response rate could not be calculated precisely due to the absence of a formal denominator, but participation was facilitated through institutional outreach and in-person follow-up.

3. Survey scoring

The following validated psychometric tools were used:

- **PSS-4 (Perceived Stress Scale – 4 items):** Assesses perceived stress over the past month. High stress was defined as a score >7.7, based on the sample mean. Internal consistency: Arabic $\alpha \approx 0.80$; French $\alpha = 0.73–0.84$ [6].
- **PHQ-4 (Patient Health Questionnaire – 4 items):** Screens for anxiety and depressive symptoms. A score ≥6 indicated clinically significant anxiety-depressive symptoms. Arabic version: $\alpha \approx 0.86$ [7].
- **ISI (Insomnia Severity Index):** A 7-item scale assessing insomnia severity over the past 2 weeks. Clinical insomnia was defined as ISI ≥15 [8].
- **AQ-9 (Attribution Questionnaire – 9 items):** Evaluates attitudes toward mental illness across 9 stigma domains (e.g., blame, danger, coercion). Items are rated from 1 (strongly disagree) to 9 (strongly agree). This tool is a validated short form of the AQ-27 [9].

Each tool was used in its validated Arabic and French versions, ensuring cultural and linguistic appropriateness. Cut-offs were based on established thresholds in the literature or internal norms from the sample.

4. Data analysis

Statistical analyses were conducted using Jamovi software, version 2.6.26 (The jamovi project, 2023). Descriptive statistics (means, standard deviations, frequencies) were computed for all variables. Comparisons between groups were made using:

- Independent samples t-tests (for normally distributed variables)
- Mann–Whitney U tests (for non-normally distributed variables)

Associations between continuous variables were assessed via Spearman's rank correlation. To explore predictors of clinically relevant mental health outcomes (high stress, anxiety and depressive symptoms, insomnia), univariate binary logistic regression analyses were performed. Statistical significance was set at $p < 0.05$.

5. Ethical approval

This study was a non-interventional, anonymous survey and did not require formal ethical approval according to national regulations. Written informed consent was obtained from all participants. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration.

RESULTS

1. Participant characteristics

The final sample included 46 non-clinical staff members with a mean age of 33.8 years (SD=9.15). Women represented 56.5% of participants. Nearly half (47.8%) had a low educational level (defined as high school diploma or below, excluding vocational training). Half of the participants were single, and most had no children.

2. Occupational data

Regarding professional roles, 43.5% worked in administrative positions, 34.8% in technical roles, and 21.7% were employed as security personnel. The majority (80.4%) reported working more than 30 hours per week. Only 5 participants worked in shifts. Daily contact with psychiatric patients was reported by 71.7% of the sample. Verbal aggression in the workplace was reported by 58.7%, and physical aggression by 37.0%.

3. Psychiatric history

A personal history of mental disorders was reported by 4.3% of participants. Family history of mental illness was reported by 23.9%, and psychiatric hospitalization within the family by 8.7%.

4. Psychometric outcomes

- **Perceived Stress (PSS-4):** Mean score was 7.7 (SD = 2.52); 54.3% of participants scored above this value.
- **Anxiety-Depressive Symptoms (PHQ-4):** Median score was 3 [IQR: 1–6]; 30.4% of participants met the clinical threshold (PHQ-4 ≥ 6).
- **Insomnia Severity (ISI):** Median score was 2 [IQR: 1–5.75]; no participants met the clinical threshold (ISI ≥ 15).
- **Attitudes Toward Mental Illness (AQ-9):** Mean score was 45.5 (SD = 6.32), indicating generally positive attitudes.

A full overview of sociodemographic, occupational, psychiatric history, and psychometric data is presented in Table 1.

Table 1: Sociodemographic and occupational profile, mental health history, and psychometric scores of participants

Variable	Value (N=46)
Sociodemographic and occupational characteristics	
Mean age (years) [1]	33.8 ± 9.15
female gender [2]	26 (56.5)
Education level [2]	
Illiterate	2 (4.3)
Primary school	2 (4.3)
Secondary school	15 (32.6)
High school diploma	7 (15.2)
Vocational diploma	3 (6.5)
University degree	17 (37.0)
Marital status [2]	
Single	23 (50.0)
Married	23 (50.0)
Number of children [2]	
None	27 (58.7)
1 child	5 (10.9)
2 children	7 (15.2)
3 or more	7 (15.2)
Job type [2]	
Administrative	20 (43.5)
Technical	16 (34.8)
Security	10 (21.7)
Weekly working hours [2]	
<20h	7 (15.2)
20–30h	2 (4.3)
30–40h	19 (41.3)
>40h	18 (39.1)
Shift work [2]	5 (10.9)
Daily patient interaction [2]	
Less than monthly	5 (10.9)
More than monthly	4 (8.7)
Weekly or more	4 (8.7)
Daily	33 (71.7)
history of Verbal assault [2]	27 (58.7)
history of Physical assault [2]	17 (37.0)
HISTORY of mental disorders	
Personal History [2]	2 (4.3)

Familiy History [2]	11 (23.9)
Family History of Psychiatric Hospitalization [2]	4 (8.6)
Psychometric scores	
PSS-4 [1]	7.7 ± 2.52
PHQ-4 [3]	3 [1, 6]
ISI [3]	2 [1, 5.75]
AQ-9 [1]	45.5 ± 6.32

[1] : Mean ± SD. [2] : n (%). [3] : Median [IQR]

6. Associations and predictors

Associations between psychometric outcomes and demographic or occupational factors were examined using correlational and group comparison analyses. Spearman's rank correlation revealed a strong positive relationship between perceived occupational stress and anxiety-depressive symptoms ($\rho = 0.784$, $p < 0.01$; Figure 1a). Moderate positive correlations were also observed between perceived stress and insomnia severity ($\rho = 0.370$, $p = 0.011$; Figure 1b), as well as between anxiety-depressive symptoms and insomnia severity ($\rho = 0.374$, $p = 0.010$; Figure 1c). No significant correlations were found between any of the psychometric outcomes and attitudes toward mental illness, as measured by the AQ-9.

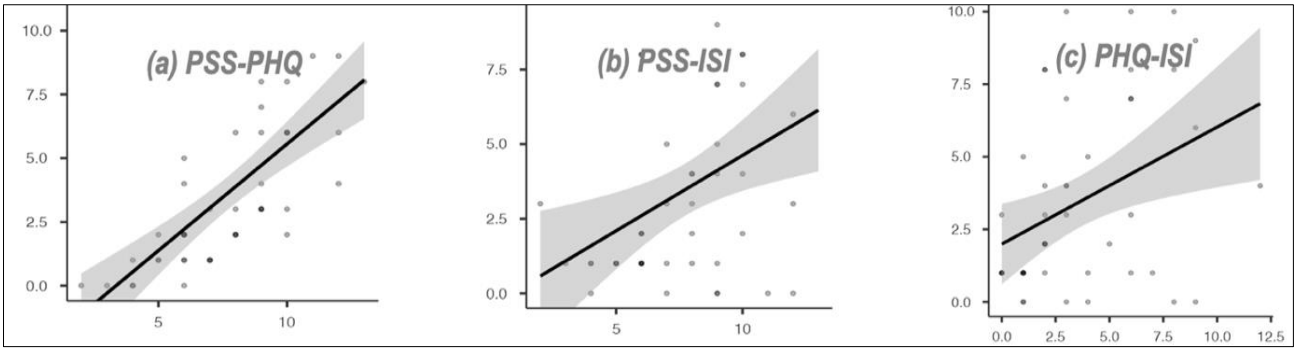

Figure 1: Spearman correlations between perceived stress (PSS-4), anxiety-depressive symptoms (PHQ-4), and insomnia severity (ISI)

(a) PSS-4 and PHQ-4: ρ = 0.784, p < 0.01
(b) PSS-4 and ISI: ρ = 0.370, p = 0.011
(c) PHQ-4 and ISI: ρ = 0.374, p = 0.010

Group comparisons were conducted using independent samples t-tests and Mann–Whitney U tests, depending on data distribution. Perceived stress scores were significantly higher among female participants compared to males (Cohen's $d = 0.738$, $p = 0.017$). Anxiety-depressive symptoms were also significantly associated with gender (Spearman's $r = –0.433$, $p = 0.012$), indicating a moderate to strong effect size. Insomnia severity was moderately associated with having a family history of psychiatric disorders (Spearman's $r = 0.460$, $p = 0.022$).

A univariate logistic regression analysis (Table 2) was conducted to identify predictors of high perceived stress (PSS-4 > 7.7), clinically significant anxiety-depressive symptoms (PHQ-4 ≥ 6), and clinical insomnia (ISI ≥ 15). Female gender was the only significant predictor of high perceived stress (OR = 4.179, 95% CI [1.2–14.4], $p = 0.020$). No significant predictors were identified for anxiety-depressive symptoms or insomnia.

Table 2: Univariate logistic regression: association between female gender and high perceived occupational stress (OR, 95% CI)

Variable	Odds Ratio (OR)	IC 95%	*p-value*
Female gender	4.17	[1.2-14.4]	0,02

DISCUSSION

This study confirms a high prevalence of perceived occupational stress and clinically significant anxiety-depressive symptoms among non-clinical staff working in psychiatric settings. These findings are consistent with previous research conducted among healthcare professionals (Johnson S *et al.,* 2018; Stansfeld S *et al.,* 2014; Heilmann K *et al.,* 2022), but extend current knowledge to a workforce segment that remains underrepresented in the literature (May S *et al.,* 2019; Young H *et al.,* 2021; Cohen S & Williamson G, 1988; Kroenke K *et al.,* 2009; Bastien CH *et al.,* 2001; Corrigan PW *et al.,* 2003; Oates J, 2019). Non-clinical personnel—although less visible—are regularly exposed

to emotionally taxing environments and institutional stressors. Our results support the need for their inclusion in workplace mental health research and interventions.

Although no cases of clinical insomnia were detected, subclinical insomnia symptoms were moderately correlated with both perceived stress and anxiety-depressive symptoms. This supports previous findings that insomnia may act as a mediator between occupational stress and psychological disorders (May S *et al.,* 2019; Li Y *et al.,* 2020). Sleep disturbances, even when subclinical, could represent a latent vulnerability and may signal future mental health risks if unaddressed.

The association between higher levels of perceived stress and female gender aligns with international evidence showing greater emotional burden among women in healthcare environments (Shi X *et al.,* 2024; Guille C *et al.,* 2017). In contrast, no other sociodemographic or occupational variables were significantly associated with anxiety-depressive symptoms or insomnia, suggesting that stress vulnerability among women may be independent of job role or exposure level.

Surprisingly, no significant associations were found between psychological distress and work-related exposure to psychiatric patients, aggression, or attitudes toward mental illness. Given that nearly half the sample had a low educational level (47.8%), and considering cultural and institutional dynamics in Morocco, one might have anticipated a stronger impact of stigma or patient-related exposure. These non-significant results suggest the possible influence of unmeasured variables—such as perceived institutional support, coping strategies, or job satisfaction—that merit further exploration (Heilmann K *et al.,* 2022; Zhu Z *et al.,* 2020).

Several limitations should be acknowledged. The sample size was small, and data were drawn from a single psychiatric hospital, limiting generalizability. The cross-sectional design prevents causal inference. Moreover, reliance on self-report questionnaires may introduce bias, particularly in a stigmatized context. Despite efforts to improve accessibility (e.g., audio playback and interviews), comprehension may have varied based on literacy.

The particularly low reporting rates of mental illness (4.3%) likely reflect cultural stigma and professional risk perception. This underreporting may have influenced the strength of associations involving psychiatric history, though this variable was retained in the analysis. In contrast, data on substance use were excluded due to concerns about reliability and potential social desirability bias.

Future research should aim to replicate these findings in larger, multicenter samples and consider mixed methods to explore the lived experiences, support needs, and organizational context of non-clinical staff. Incorporating qualitative approaches could help clarify how institutional, cultural, and personal factors interact to shape psychological vulnerability.

CONCLUSION

This study highlights a substantial burden of psychological distress among non-clinical staff working in a psychiatric hospital setting, particularly among women. More than half of the participants reported elevated levels of perceived stress, and nearly one-third exhibited clinically significant anxiety-depressive symptoms. Although no participants met criteria for clinical insomnia, subclinical sleep disturbances were moderately associated with psychological symptoms, indicating a possible latent risk.

The absence of associations with commonly expected workplace stressors—such as exposure to aggression or patient contact—suggests that other factors, including institutional dynamics, perceived support, or cultural influences, may play a more prominent role in shaping mental health outcomes among non-clinical staff.

These findings underscore the importance of inclusive mental health strategies that extend beyond clinical personnel and address the needs of all workers within psychiatric settings. Targeted prevention efforts, particularly gender-sensitive approaches, should be considered a priority in occupational mental health policy and research.

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