Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Workplace Bullying Among Nursing Students: Prevalence, Consequences, and the Bullying-to-Attrition Cascade Framework

Winfridah Wangui Njung'e

winfridah.w.njunge@gmail.com

Mama Ngina University College https://orcid.org/0000-0003-2771-7178

Stanley Bwire

Maasai Mara University https://orcid.org/0009-0004-7875-247X

Research Article

Keywords: workplace bullying, nursing students, clinical placements, workplace violence, mental health, professional identity, patient safety, workforce retention Sustainable Development Goal 3, Bullying-to-Attrition Cascade Framework, LMIC nursing education Kenya sub-Saharan Africa

Posted Date: July 8th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-10282556/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: The authors declare no competing interests.

Abstract

Aim

To examine prevalence, perpetrators, and multidimensional consequences of workplace bullying among nursing students, and to propose the Bullying-to-Attrition Cascade Framework (BACF) as a theory-informed explanatory model.

Background

Workplace bullying, workplace violence, and incivility within clinical learning environments threaten students' wellbeing, skills development, professional identity, patient safety, and workforce retention.

Design

: A cross-sectional survey sampled 102 BSc Nursing students following a four-month clinical placement across eight Kenyan referral hospitals.

Methods

A validated, adapted Negative Acts Questionnaire-Revised (NAQ-R) was administered electronically. Descriptive and inferential statistics deployed R (v4.3.1).

Results

Workplace bullying prevalence was 79.4%, while 78.4% had witnessed another student being bullied. Qualified nurses/midwives were the most dominant perpetrators (72.8%), followed by patients/relatives. Predominant consequences: emotional/mental health impacts, impaired learning, reduced teamwork, perceived negative effects on patient care, and intention to leave nursing. Chronic bullying and female gender independently predicted adverse mental health outcomes (aOR = 4.08; 3.2).

Conclusion

Workplace bullying is highly prevalent within Kenyan clinical training environments. The BACF offers multiple intervention points for nursing education, policy reform, and health-system strengthening aligned with SDG 3.

Highlights

• Workplace bullying affected 79.4% of Kenyan nursing students during clinical placements

• Qualified nurses and midwives were the main perpetrators; chronic exposure was associated with worse mental health outcomes.

• Bullying was linked to psychological distress, impaired learning, and compromised patient care.

• Four in ten bullied students considered leaving the nursing profession.

• The Bullying-to-Attrition Cascade Framework links bullying, patient safety, and SDG 3 workforce retention.

Introduction

Clinical placements constitute the cornerstone of nursing education, providing the primary environment in which students translate theoretical knowledge into clinical reasoning, psychomotor competence, and professional identity. Through sustained engagement in authentic healthcare settings, students develop confidence, communication skills, ethical values, and clinical competence required for safe, effective practice [1]. Positive clinical learning environments foster professional socialization, enhance learning outcomes, and strengthen commitment to the profession; conversely, hostile or psychologically unsafe environments compromise learning, well-being, and career intentions [2–4]. Among the most pervasive threats within clinical training is workplace bullying, which undermines students' educational experiences and mental well-being [5, 6].

Workplace bullying is defined as repeated, deliberate harassment behaviors intended to intimidate, humiliate, exclude, or undermine an individual who cannot effectively defend themselves, typically occurring within contexts of power imbalance [7]. In healthcare, bullying commonly manifests as verbal abuse, public humiliation, intimidation, hostile communication, unfair criticism, exclusion from learning opportunities, deliberate withholding of clinically relevant information, and work sabotage [8, 9]. As the commonest form of workplace violence and incivility [10], bullying is increasingly conceptualized as part of a broader continuum threatening individual well-being, organizational effectiveness, and patient safety [11].

Globally, the prevalence of workplace bullying during clinical placements is alarmingly high. Recent systematic reviews and meta-analyses estimate that up to 70% of nursing students experience bullying [5, 9, 12, 13], with prevalence frequently exceeding 50% across diverse settings [2, 3, 8, 13, 14]. Verbal aggression, intimidation, humiliation, and excessive criticism are consistently reported as the most common forms [15]. Although bullying is well-documented among registered nurses [12, 16], nursing students are disproportionately vulnerable due to their subordinate position within clinical hierarchies [5, 7]. During placements, students rely on registered nurses, clinical instructors, physicians, and other healthcare professionals for supervision, assessment, mentorship, and access to learning opportunities. This dependence creates inherent power asymmetries that may discourage reporting of bullying

incidents due to fear of retaliation, poor evaluations, damaged professional relationships, or loss of learning opportunities [3, 17]. Consequently, bullying is often normalized as an unavoidable component of clinical training, contributing to substantial underreporting [2, 18].

The perpetrators of workplace bullying are diverse, including registered nurses, clinical instructors, physicians, and patients or relatives [3, 10, 19]. Studies from high-income countries consistently identify qualified nurses and clinical mentors as the primary perpetrators, with hierarchical organizational cultures and high workload stress frequently cited as contributing factors [14, 20]. However, evidence from low- and middle-income countries (LMIC), particularly sub-Saharan Africa, remains scarce. Resource constraints, chronic understaffing, and high patient-to-nurse ratios characteristic of many African health systems [21, 22] may intensify workplace stress and increase the risk of bullying behaviors towards students [23], underscoring the need for context-specific evidence.

The consequences of workplace bullying extend beyond immediate emotional distress, affecting students, healthcare organizations, and patients. Exposure is associated with physical impacts, mental health challenges (anxiety, depression, and psychological distress), burnout, reduced resilience, impaired professional identity, diminished self-efficacy, and adverse physical health outcomes [4, 6, 8, 14, 19, 24, 25]. Broader social inequalities, including discrimination and unequal access to opportunities, may further compound these mental health risks among youth [26]. Bullied students report significantly lower professional quality of life, characterized by emotional exhaustion, compassion fatigue, and reduced job satisfaction [27, 28]. Bullying also compromises educational outcomes by impairing clinical learning, skill acquisition, confidence, clinical reasoning, and academic performance [29, 30]. Crucially, workplace bullying directly threatens patient safety by impairing communication, teamwork, increasing errors, and reducing care quality [11, 31], while exacerbating nursing workforce shortages through higher attrition from nursing programs and turnover intentions [4, 20, 32, 33]. Workplace bullying should therefore be viewed not only as an educational and occupational health issue but also as a patient safety and health systems challenge.

This issue is particularly relevant to global efforts to strengthen the health workforce. As healthcare systems worldwide confront critical nursing workforce shortages [34] ensuring safe, supportive clinical training environments has emerged as an urgent educational and policy priority [35]. Bullying that drives students out of nursing training or discourages future clinical practice undermines Sustainable Development Goal 3 (SDG 3), particularly Target 3.c, which calls for increased recruitment, training, and retention of health workers, especially in developing countries [26]. The World Health Organization has identified nursing workforce development as critical for achieving Universal Health Coverage [34]. Addressing workplace bullying during training is therefore fundamental to building a resilient and sustainable nursing workforce.

Despite growing international evidence, research on workplace bullying among nursing students in sub-Saharan Africa remains sparse. Existing studies from Ghana, Sierra Leone, and South Africa document verbal abuse, intimidation, and exclusion during clinical placements, with adverse consequences for

learning, mental health, and professional identity [25, 36, 37]. These findings suggest that bullying is not confined to high-income countries but is also embedded within resource-constrained healthcare systems characterized by workforce shortages and entrenched hierarchical cultures. However, no published study has comprehensively examined workplace bullying among nursing students in Kenya, representing an important evidence gap in a country facing persistent nursing workforce challenges.

The study was guided by the concept of hierarchical workplace violence, which emphasizes the role of power imbalances in enabling hostile behaviors toward individuals occupying subordinate positions within organizational structures [7]. Thus, the study aimed to determine the prevalence of workplace bullying among nursing students during clinical placements in Kenya and to identify its principal perpetrators and psychological, educational, professional, and physical consequences. By generating the first comprehensive evidence from Kenya, this study provides contextually relevant data to inform clinical education policies, mentorship practices, and workplace interventions that promote psychologically safe learning environments. The findings also contribute to global efforts to strengthen the nursing workforce and advance progress toward SDG 3 in Kenya and other resource-constrained settings.

Materials and Methods

Study design and setting

A descriptive cross-sectional survey was conducted between December 2025 and January 2026 among undergraduate nursing students from a public university in Kenya following completion of a mandatory four-month clinical placement. Clinical placements were undertaken in seven teaching and referral hospitals across the Rift Valley region and a national referral hospital in Nairobi, where students rotated through medical, surgical, pediatric, maternity, theatre, intensive care, renal units, psychiatric, casualty, and outpatient clinics. These hospitals serve as major teaching and referral facilities, making them appropriate settings for examining workplace bullying during clinical education. The placement environments are characterized by high patient volumes, workforce shortages, and hierarchical organizational structures, which are typical of many healthcare settings in sub-Saharan Africa [22].

Participants and Sampling

The study population comprised 330 Bachelor of Science in Nursing (BScN) students who had completed the full four-month placement during the study period and provided informed consent. Those who did not complete the placement or declined participation were excluded. The minimum sample size was estimated using Cochran's formula with finite population correction, assuming a 10% margin of error and adjusting for 20% non-response, yielding 94 participants. The achieved sample of 102 students (30.9% of the population) exceeded this requirement, providing adequate precision for descriptive prevalence estimates. Participants were recruited using stratified proportionate random sampling, with strata defined by year of study (Years 2, 3, and 4), ensuring representation across training levels.

Data Collection Instrument and Procedures

Data were collected using a structured self-administered online questionnaire adapted from the Negative Acts Questionnaire-Revised (NAQ-R), psychometrically validated for nursing student populations [7]. The instrument was contextualized to reflect nursing students' clinical placement experiences and supplemented with items derived from contemporary literature on workplace bullying, workplace violence, and incivility in nursing education. The questionnaire comprised four sections: (i) participant characteristics (age, sex, year of study, and clinical placement characteristics); (ii) exposure to workplace bullying during the preceding four-month placement, including occurrence, frequency, and location; (iii) perceived perpetrators of bullying (registered nurses, physicians, fellow students, patients, and patients' relatives); and (iv) self-reported psychological, educational, professional, and physical consequences of bullying. Content and face validity were established through independent review by three nursing faculty members and one clinical placement coordinator. The questionnaire was pilot-tested among ten nursing students who were excluded from the main study, resulting in minor wording revisions to improve clarity. The final instrument demonstrated good internal consistency (Cronbach's $\alpha = 0.84$). Workplace bullying was operationalized as repeated harassment behaviours intended to intimidate, humiliate, exclude, or undermine an individual within a context of actual or perceived power imbalance, according to the definition proposed by Einarsen et al. (2020).

The questionnaire was hosted on Google Forms with mandatory items and skip logic to minimize missing data, unique student email verification to prevent duplication, and automatic timestamp recording to ensure data quality. Data were collected immediately after placement completion to minimize recall bias while allowing participants to reflect on their cumulative clinical experiences. Students received an electronic invitation via the official university platform, containing a participant information sheet and a secure survey link. Participation was voluntary; electronic informed consent was obtained on the Google Forms landing page before survey access. No personally identifying information (names, admission numbers, email or IP addresses) was collected. Responses were transmitted via encrypted connection and stored in a password-protected database accessible only to the investigators.

Data analysis

Upon closure of the survey, data were exported from Google Forms to R statistical software (v4.3.1). Descriptive statistics summarized participant characteristics, workplace bullying prevalence, perpetrators, and reported consequences. Continuous variables were summarized using means and standard deviations, whereas categorical variables were presented as frequencies, percentages, and 95% Wilson confidence intervals. Chi-square tests examined associations between bullying exposure and categorical variables, including gender, year of study, and prior bullying education. Independent t-tests compared age and continuous placement characteristics between bullied and non-bullied groups. Multivariable logistic regression models identified independent predictors of bullying exposure and key consequences, including intention to leave nursing, mental health impact, adjusting for age, gender, year of study, prior bullying education, and wards rotated. Adjusted odds ratios (aOR) with 95% CIs are

reported. Model fit was assessed using the Hosmer-Lemeshow test; multicollinearity was evaluated using the variance inflation factor (VIF). Missing data comprising less than 3% per variable were handled by listwise deletion. Statistical significance was set at $p < 0.05$.

Ethical considerations

Ethical approval was granted by the National Commission for Science, Technology and Innovation (NACOSTI/P/25/4182156), with administrative permission obtained from the participating university. The study followed the Declaration of Helsinki and Belmont principles of voluntary participation, informed consent, anonymity, and confidentiality via anonymized data coding, with no impact on academic assessments.

Results

A total of 102 BSc Nursing students participated in the study. After listwise deletion for missing outcome data (< 3% per variable), complete data were available for 99 participants for most analyses. Participants had a mean age of 22.3 years (SD = 1.8, range 19–28). The majority were male (55.9%, n = 57) and in Year 4 (64.7%, n = 66), followed by Year 3 (24.5%, n = 25) and Year 2 (9.8%, n = 10). Sixty-one participants (59.8%) reported having received prior education on workplace bullying before their placement. The mean number of wards rotated during the 4-month placement was 5.2 (SD = 2.1), with the most common rotations being Medical (50.0%) and Surgical (48.0%) wards, pediatrics (47.1%), maternity (44.1%), and mental Health units (33.3%). Full demographic and clinical exposure characteristics are presented in Table 1.

Table 1
Participant demographic and clinical placement characteristics (n = 102)

Characteristic	n (%)	95% Wilson CI
Gender		
Male	57 (55.9)	46.0–65.4
Female	45 (44.1)	34.6–54.0
Year of study		
Year 2	10 (9.8)	5.1–17.5
Year 3	25 (24.5)	17.0–33.9
Year 4	66 (64.7)	54.7–73.6
Prior education on bullying		
Yes	61 (59.8)	49.8–69.1
No	41 (40.2)	30.9–50.2
Mean age (years)	22.3 (SD = 1.8)	–
Mean wards rotated	5.2 (SD = 2.1)	–

Prevalence of Workplace Bullying

Overall, 81 students (79.4%) reported experiencing workplace bullying during their most recent four-month clinical placement. A further 80 participants (78.4%) reported witnessing another nursing student being bullied. Among students who experienced bullying (n = 81), the most commonly reported frequency was three to four incidents (38.3%, n = 31), and 22.2% reported experiencing five or more incidents (chronic bullying) during the placement period. Four participants (4.9%) who reported experiencing bullying did not provide frequency data and were excluded from frequency analyses (Table 2).

Table 2
Prevalence and frequency of workplace bullying among nursing students (n = 102)

Variable	n (%)	95% Wilson CI
Experienced bullying (yes)	81 (79.4)	70.3–86.4
Witnessed another bullied (yes)	80 (78.4)	69.2–85.5
Frequency among bullied nursing students (n = 81)		
1–2 incidents	28 (34.6)	24.8–45.8
3–4 incidents	31 (38.3)	28.2–49.5
≥ 5 incidents (chronic)	18 (22.2)	14.3–32.7
Missing frequency data	4 (4.9)	1.7–12.6

Perpetrators of Workplace Bullying

Qualified nurses and midwives were the most frequently identified perpetrators (n = 59, 72.8%), followed by patients or their relatives (n = 35, 43.2%), student mentors (n = 18, 22.2%), doctors (n = 18, 22.2%), allied health staff (n = 16, 19.8%), and fellow students (13.6%, n = 11).

The primary venues for bullying incidents were the ward/patient care area (74.1%, n = 60), nurses' station/break room (25.9%, n = 21), and ward rounds/simulation activities (22.2%, n = 18), with smaller proportions during handovers (13.6%, n = 11) and hospital corridors (3.7%, n = 3).

Consequences of workplace bullying

Bullying had substantial negative impacts. The most commonly reported consequence was emotional and mental health impact, including feelings of stress, depression, hopelessness, nervousness, and anxiety (75.3%, n = 61). More than half (53.1%, n = 43) indicated that bullying negatively affected their learning/skill development. Impaired ability to work effectively with others was reported by 48.1% (n = 39), while 39.5% (n = 32) reported negative effects on the standard of patient care provided. Notably, 40.7% (n = 33) of bullied students indicated that bullying made them consider leaving the nursing profession. Physical health effects were reported by 7.4% (n = 6) of bullied respondents.

The mean number of consequences reported per bullied student was 3.2 (SD = 1.6, range 1–6). Female students reported significantly more consequences than their male counterparts (mean = 3.6 vs. 2.8; $t(100) = 2.48$, $p = 0.015$, Cohen's $d = 0.50$). Students experiencing chronic bullying (≥ 5 incidents) reported significantly more consequences compared to those with low-frequency exposure (1–2 incidents) (mean = 4.2 vs. 3.0; $t(44) = 2.61$, $p = 0.012$, Cohen's $d = 0.79$), indicating a dose-response relationship.

Factors Associated with Workplace Bullying

Continuous Variable Comparisons (t-tests)

Bullied and non-bullied students did not differ significantly in mean age (22.4 ± 1.6 vs. 21.9 ± 1.2 years; t(100) = 1.45, p = 0.150) or number of wards rotated (5.3 ± 2.2 vs. 4.8 ± 1.9; t(100) = 1.12, p = 0.266). Among bullied respondents, those with chronic bullying (≥ 5 incidents) trended older but not significantly so compared to those with low-frequency exposure (1–2 incidents) (23.1 ± 2.0 vs. 22.1 ± 1.6 years; t(44) = 1.86, p = 0.069). Prior education on bullying was not associated with age (22.2 ± 1.7 vs. 22.4 ± 2.0 years; t(100) = 0.54, p = 0.593).

Categorical Variable Comparisons (Chi-square)

Chi-square tests revealed that bullying exposure was significantly associated with prior education on workplace bullying ($\chi^2 = 5.72$, df = 1, p = 0.017), with those who had received prior education reporting higher bullying exposure (87.7%) compared to those without (68.3%). No significant associations were observed between bullying exposure and gender ($\chi^2 = 0.48$, p = 0.488) or year of study ($\chi^2 = 2.13$, p = 0.344).

Among bullied respondents, chronic bullying (≥ 5 incidents) was significantly associated with female gender ($\chi^2 = 4.21$, df = 1, p = 0.040), with 31.1% of females reporting chronic exposure compared to 14.3% of males. No significant association was found between chronic bullying and year of study ($\chi^2 = 1.87$, df = 2, p = 0.392) or prior education ($\chi^2 = 0.54$, df = 1, p = 0.462)

Multivariable Logistic Regression

Two logistic regression models were fitted. Model 1 (predicting bullying exposure, n = 99) showed that prior education on bullying was the only significant independent predictor (aOR = 3.12, 95% CI: 1.15–8.50, p = 0.025), after adjusting for age, gender, and year of study (Table 3). Age, gender, and year of study were not significant predictors (all p > 0.10).

Table 3
Multivariable logistic regression: predictors of bullying exposure (n = 99)

Predictor	aOR	95% CI	p-value
Prior education (yes vs. no)	**3.12**	1.15–8.50	**0.025**
Age (per year)	0.95	0.72–1.25	0.714
Gender (female vs. male)	0.87	0.34–2.22	0.768
Year 3 (vs. Year 2)	1.45	0.30–6.98	0.643
Year 4 (vs. Year 2)	1.12	0.28–4.45	0.871
Model fit: Hosmer-Lemeshow $\chi^2 = 5.91$, df = 8, p = 0.657; Nagelkerke $R^2 = 0.124$; VIF < 1.5; EPV = 15.8.			

Model 2 predicted mental health impact (emotional/mental health consequences) among the 81 students who reported experiencing bullying. To avoid overfitting, we limited predictors to those with

theoretical and bivariate significance: gender, bullying frequency, and prior education on bullying. This yielded 61 events with 3 predictors, exceeding the minimum 10 events per variable (EPV = 20.3), ensuring model stability.

Female gender was independently associated with higher odds of reporting mental health impact (aOR = 3.21, p = 0.036). Chronic bullying (≥ 5 incidents) also significantly increased the odds of mental health (aOR = 4.08, p = 0.043), suggesting a dose-response relationship, where higher bullying frequency compounds psychological harm, particularly among female students. Prior education on bullying was not significantly associated with mental health impact in the adjusted model. Results are presented in Table 4.

Table 4
Multivariable logistic regression: predictors of mental health impact among bullied respondents (n = 81)

Predictor	**aOR**	**95% CI**	**p-value**
Female gender (vs. male)	**3.21**	1.08–9.54	**0.036**
Chronic bullying (≥ 5 incidents vs. 1–2)	**4.08**	1.05–15.86	**0.043**
Prior education on bullying (yes vs. no)	1.39	0.47–4.10	0.552
Model fit: Hosmer-Lemeshow $\chi^2 = 2.14$, df = 8, p = 0.976; Nagelkerke $R^2 = 0.187$; VIF < 1.3; EPV = 20.3.			

Discussion

This study provides the first empirical evidence on workplace bullying among nursing students during clinical placements in Kenya, a context conspicuously absent from the global bullying literature despite its acute health workforce vulnerabilities. Findings reveal bullying as structurally embedded rather than episodic, affecting nearly four in five students, perpetrated predominantly by qualified nurses, cascading across psychological, educational, and patient safety domains, and demonstrating a clear dose-response relationship between exposure frequency and harm severity.

The overall prevalence of workplace bullying observed in this study (79.4%) exceeds pooled estimates reported in recent systematic reviews and meta-analyses, which generally report prevalence rates between 50% and 73% among nursing students globally [5, 13, 19]. Nevertheless, the findings are consistent with emerging evidence from clinical education environments characterized by workforce shortages, heavy workloads, organizational stress, and hierarchical organizational cultures [2, 3, 10, 38]. Similar findings have been reported among nursing students in South Africa, Ghana, and Nigeria, where clinical learning environments are frequently constrained by inadequate staffing and limited supervisory capacity [36, 39]. The similarly high prevalence of witnessing bullying suggests that these behaviors are not isolated interpersonal events but are visible features of the clinical learning environment. This observation supports recent evidence indicating that repeated exposure to observed incivility and

bullying contributes to the normalization of mistreatment and underreporting among nursing students [5, 17].

Registered nurses and midwives emerged as the principal perpetrators, corroborating findings from recent reviews and multicountry studies demonstrating that registered nurses, preceptors, and clinical supervisors are frequently implicated in bullying of nursing students during clinical placements [8, 13]. This finding aligns with the theory of hierarchical workplace violence, which posits that individuals occupying positions of authority may exert power over those with less organizational influence [7]. Nursing students rely heavily on qualified nurses for supervision, mentorship, performance evaluation, and access to learning opportunities, which can create power asymmetries that may discourage the reporting of negative behaviors for fear of negative evaluations, exclusion, or damaged professional relationships [3, 18]. The substantial contribution of patients and relatives as perpetrators further reflects the broader burden of workplace violence affecting healthcare workers globally [10, 40].

The consequences observed in this study highlight the multidimensional impact of bullying on student well-being and professional development. Three-quarters of bullied students reported adverse emotional or mental health effects, while many also reported impaired learning, reduced teamwork and collegial relationships, perceived negative effects on patient care, and intentions to leave the nursing profession. These findings mirror growing evidence linking workplace bullying exposure to anxiety, depression, psychological distress, burnout, emotional exhaustion, compassion fatigue, diminished professional quality of life, and reduced academic engagement [12, 25, 41, 42]. Importantly, nearly 40% of bullied students reported perceived negative effects on patient care. This finding supports an expanding body of evidence demonstrating that bullying compromises communication, teamwork, and error reporting, all of which are fundamental determinants of patient safety [31]. Particularly concerning is the finding that more than two-fifths of bullied students considered leaving the profession. Similar associations between bullying exposure, reduced program satisfaction, diminished sense of belonging, and increased attrition intentions have been reported elsewhere [4, 8, 12, 33]. In countries already facing critical nursing workforce shortages, bullying during training may undermine health system sustainability.

The observed dose-response relationship further strengthens concerns regarding cumulative harm. Students exposed to chronic bullying reported significantly more adverse consequences, and had fourfold higher odds of reporting mental health impacts. Although causality cannot be established within a cross-sectional design, these findings are consistent with contemporary evidence suggesting that repeated exposure to hostile workplace behaviors progressively erodes psychological well-being, self-efficacy, resilience, and professional identity [19, 30]. Female students were also more likely to report adverse mental health effects, a gender differential in the perception and psychological impact of workplace mistreatment that is mirrored in recent reviews [24, 42].

The positive association between prior bullying education and reported exposure (aOR = 3.12) constitutes a counterintuitive but theoretically coherent finding. Rather than indicating increased victimization, this association may reflect greater awareness and recognition of bullying behaviors

among educated students. Previous studies have similarly demonstrated that training enhances students' ability to identify subtle forms of workplace mistreatment that might otherwise be normalized or dismissed as part of clinical training [43, 44]. Upstream institutional reform encompassing mentor accountability, anonymous reporting infrastructure, and zero-tolerance policy implementation, therefore, is indispensable alongside student-facing interventions. Workplace bullying should be conceptualized not merely as a student welfare issue but as an upstream determinant of patient safety, workforce retention, and health-system resilience.

Theoretical Contribution: The Bullying-to-Attrition Cascade Framework

Integrating Meleis's Transitions Theory [45], Conservation of Resources Theory [46], and contemporary hierarchical workplace violence theory [7], we propose the Bullying-to-Attrition Cascade Framework (BACF) as an interpretive model explaining how workplace bullying may affect nursing students during clinical placements (Fig. 1). Meleis' farmwork positions nursing students as individuals navigating a critical educational-to-professional transition, rendering them acutely sensitive to environmental conditions that either facilitate or disrupt healthy role integration, with bullying constituting a powerful destabilizing force within this transitional period. Hobfoll's loss spiral conceptualization explains the dose-response relationship documented here: initial depletion of psychological safety, social support, professional confidence, and learning opportunities accelerates further resource loss under sustained bullying exposure. The hierarchical workplace violence framework accounts for the structural dominance of qualified nurses as perpetrators, situating bullying as a product of power-differentiated clinical environments rather than individual pathology.

Collectively, these theoretical anchors position structural antecedents: hierarchical clinical culture, workforce shortages, and resource constraints, as preconditions amplifying student vulnerability [22, 34]. Bullying then initiates a sequential cascade of harm: psychological distress manifesting as anxiety, depression, burnout, and diminished self-efficacy, which precipitates impaired learning and eroded teamwork, converging to compromise patient safety and drive intention to leave nursing [5, 11, 17]. The cascade is moderated by resilience, mentorship quality, and institutional reporting access, while feedback loops through which bullying normalization perpetuates hostile cultures sustain conditions enabling future exposure [2, 8]. The BACF advances existing literature by integrating antecedents, mediators, moderators, outcomes, and feedback dynamics within a single LMIC-contextualized architecture — explicitly linking individual-level harm to systems-level workforce attrition and patient safety consequences, and positioning bullying eradication as inseparable from SDG 3, Target 3.c health workforce retention goals [26]. The Bullying-to-Attrition Cascade Framework provides a replicable, theoretically grounded foundation for future longitudinal and intervention research.

Implications

The findings underscore the need for multilevel interventions addressing both individual and organizational determinants of workplace bullying.

Educational implications: Universities should incorporate structured pre-placement bullying preparedness training, psychological safety training, and anonymous reporting mechanisms within nursing programs.

Practice implications: Healthcare institutions should implement mentor accountability systems, zero-tolerance anti-bullying policies, accessible anonymous incident reporting channels and response systems, and structured post-placement debriefing.

Policy implications: Nursing education regulatory bodies must embed mandatory anti-bullying governance frameworks within clinical placement accreditation standards, requiring participating hospitals to demonstrate active student protection mechanisms as a condition of placement approval. For global health policy, international bodies, including the WHO must explicitly integrate clinical learning environment safety into nursing workforce development frameworks under SDG 3, Target 3.c, recognizing workplace bullying as a threat to workforce retention and quality of care.

Strengths and Limitations

This study provides novel evidence from Kenya, where empirical data on nursing student bullying have been largely absent. Strengths include the use of a theory-informed framework, assessment of multiple outcome domains, and application of multivariable analyses to identify independent predictors. Nevertheless, several limitations warrant acknowledgement. The cross-sectional design precludes causal inference, and self-reported measures introduce recall and social desirability bias despite immediate post-placement data collection. Single-university sampling constrains generalizability. Future longitudinal multi-site studies are needed to elucidate causal mechanisms, validate the framework, evaluate intervention effectiveness, and track the long-term professional trajectories of affected students.

Conclusion

This study establishes that workplace bullying was highly prevalent, multidirectionally perpetrated, and deeply consequential among nursing students undertaking clinical placements in Kenyan county and national referral hospitals, affecting nearly four out of every five students during a single four-month placement. Qualified nurses and midwives were the dominant perpetrators. Consequences cascaded across psychological, educational, professional, and patient safety domains. Chronic bullying exposure and female gender independently amplified mental health risk, and a clear dose-response relationship between incident frequency and harm severity was demonstrated. The proposed Bullying-to-Attrition Cascade Framework (BACF) offers a theoretically grounded, empirically anchored interpretive model for understanding these pathways in LMIC contexts and provides a replicable scaffold for future intervention research. Addressing workplace bullying in clinical training environments is a prerequisite

for building the psychologically safe, competent nursing workforce that Kenya and comparable LMIC settings urgently need to achieve Universal Health Coverage and advance Sustainable Development Goal 3.

References

1. Cant R, Ryan C, Hughes L, Ossenberg C, Cooper S. Nursing student voices: A qualitative thematic synthesis of education elements supporting nursing students' clinical learning during placement. Nurse Educ Pract 2024;80:104150. https://doi.org/10.1016/J.NEPR.2024.104150.
2. Dafny HA, McCloud C, Pearson V, Brown S, Phillips C, Waheed N, et al. Nursing students' experience of workplace violence in clinical practice: A qualitative systematic review. J Clin Nurs 2023;32:6136–64. https://doi.org/10.1111/JOCN.16746;WGROUP:STRING:PUBLICATION.
3. Johnston S, Fox A, Patterson S, Jones R, Dafny H, Pich J, et al. Australian nursing students' experiences of workplace violence during clinical placement: A cross-sectional study. J Adv Nurs 2024;80:4933–45. https://doi.org/10.1111/JAN.16189;PAGE:STRING:ARTICLE/CHAPTER.
4. Al Muharraq EH, Baker OG, Alallah SM. The Prevalence and The Relationship of Workplace Bullying and Nurses Turnover Intentions: A Cross Sectional Study. SAGE Open Nurs 2022;8. https://doi.org/10.1177/23779608221074655;SUBPAGE:STRING:FULL.
5. Zhou J, Wang Y, Zeng Q, Zeng Y, Liu Q, Tan S, et al. Global prevalence of bullying and associated factors among nursing students during clinical practice: A systematic review and meta-analysis. Nurse Educ Today 2024;133:106090. https://doi.org/10.1016/J.NEDT.2023.106090.
6. Abdelaziz EM, Abu-Snieneh HM. The impact of bullying on the mental health and academic achievement of nursing students. Perspect Psychiatr Care 2022;58:623–34. https://doi.org/10.1111/PPC.12826;REQUESTEDJOURNAL:JOURNAL:17446163;ISSUE:ISSUE:DOI.
7. Einarsen SV, Hoel H, Zapf D, Cooper CL. Bullying and Harassment in the Workplace: Theory, Research, and Practice. 3rd Ed. Boca Raton: CRC Press; 2020. https://doi.org/10.1201/9780429462528.
8. Sharif-Nia H, Marôco J, Rahmatpour P, Allen KA, Kaveh O, Hoseinzadeh E. Bullying behaviors and intention to drop-out among nursing students: the mediation roles of sense of belonging and major satisfaction. BMC Nursing 2023 22:1 2023;22:417-. https://doi.org/10.1186/S12912-023-01584-3.
9. Lu X, Hou C, Bai D, Yang J, He J, Gong X, et al. Prevalence, associated factors, and nursing practice-related outcomes of workplace violence towards nursing students in clinical practice: A systematic review and meta-analysis. Nurse Educ Today 2024;133:106074. https://doi.org/10.1016/J.NEDT.2023.106074.
10. Mohamed FBM, Cheng LJ, Chia XEC, Turunen H, He HG. Global prevalence and factors associated with workplace violence against nursing students: A systematic review, meta-analysis, and meta-regression. Aggress Violent Behav 2024;75:101907. https://doi.org/10.1016/J.AVB.2023.101907.
11. Liao X, Xie H, Chen M. A Cross-Sectional Study of Workplace Violence and Patient Safety Competency Among Chinese Nurses. J Clin Nurs 2025;35:1647–57.

https://doi.org/10.1111/JOCN.70133;PAGE:STRING:ARTICLE/CHAPTER.

12. Goh HS, Hosier S, Zhang H. Prevalence, Antecedents, and Consequences of Workplace Bullying among Nurses—A Summary of Reviews. International Journal of Environmental Research and Public Health 2022, Vol 19, Page 8256 2022;19:8256. https://doi.org/10.3390/IJERPH19148256.
13. Pan L, Lei M, Zhang Z, Lei W. Bullying experience of undergraduate nurse students during clinical placement in Henan Province, China. Teaching and Learning in Nursing 2024;19:139–44. https://doi.org/10.1016/J.TELN.2024.01.014.
14. Zhang J, Ye J, Zhang R, Liu J, Yanhua N, Wang J. High stress during clinical practicum placement is associated with bullying among nursing students: A mixed-method study. Nurse Educ Today 2024;142:106327. https://doi.org/10.1016/J.NEDT.2024.106327.
15. Bunce A, Hashemi L, Clark C, Stansfeld S, Myers CA, McManus S. Prevalence and nature of workplace bullying and harassment and associations with mental health conditions in England: a cross-sectional probability sample survey. BMC Public Health 2024;24:1147. https://doi.org/10.1186/S12889-024-18614-7.
16. Yosep I, Fitria N, Mardhiyah A, Pahria T, Yamin A, Hikmat R. Experiences of bullying among nursing students during clinical practice: a scoping review of qualitative studies. BMC Nurs 2024;23. https://doi.org/10.1186/S12912-024-02439-1.
17. Kibunja BK, Musembi HM, Kimani RW, Gatimu SM. Prevalence and Effect of Workplace Violence against Emergency Nurses at a Tertiary Hospital in Kenya: A Cross-Sectional Study. Saf Health Work 2021;12:249–54. https://doi.org/10.1016/J.SHAW.2021.01.005.
18. Yang L, Zeng Q, Wang Y, Zhou J, Zeng Y. Why nursing students do not report workplace bullying during clinical practice: A mixed methods systematic review. Nurse Educ Today 2024;142:106341. https://doi.org/10.1016/J.NEDT.2024.106341.
19. Qutishat M, Alhadidi M, Lazarus ER, Alghunaimi AAS. Understanding the barriers to reporting bullying among nursing students in clinical settings: A systematic review. Journal of Professional Nursing 2026;62:145–54. https://doi.org/10.1016/J.PROFNURS.2025.11.007.
20. Gheri F, Ceccanti L, Donnarumma F, Petta D. Prevalence of bullying and lateral violence against nursing students by clinical teachers: A scoping review. Teaching and Learning in Nursing 2026;21:e885–93. https://doi.org/10.1016/J.TELN.2025.11.036.
21. Tee S, Üzar Özçetin YS, Russell-Westhead M. Workplace violence experienced by nursing students: A UK survey. Nurse Educ Today 2016;41:30–5. https://doi.org/10.1016/J.NEDT.2016.03.014.
22. World Health Organization. State of the World's Nursing 2025: Investing in Education, Jobs, Leadership and Service Delivery. Geneva: 2025.
23. Ekpor E, Kobiah E, Akyirem S. Prevalence and predictors of workplace violence against nurses in Africa: A systematic review and meta-analysis. Health Sci Rep 2024;7:e2068. https://doi.org/10.1002/HSR2.2068;PAGE:STRING:ARTICLE/CHAPTER.
24. Azri AM, Alajaimi F, Al-Badi M, Alhabsi H, Azri M AL, Al-Ghawi S, et al. Bullying among nursing university students: Prevalence, characteristics, and public health implications. PLOS Global Public

Health 2026;6:e0005814. https://doi.org/10.1371/JOURNAL.PGPH.0005814.

25. Johnson JO, Anwagwa S, Kamara FY. The effects of bullying behaviours among nursing students in Sierra Leone: a qualitative exploratory study. BMC Nursing 2024 23:1 2024;23:948-. https://doi.org/10.1186/S12912-024-02623-3.
26. United Nations. The Sustainable Development Goals Report 2023: Special Edition. NewYork, USA: UN DESA: 2023.
27. Masadeh A, Al-Rimawi R, Salem A, Masa'deh R. Jordanian nursing students' experience of harassment in clinical care settings. BMC Nursing 2024 23:1 2024;23:587-. https://doi.org/10.1186/S12912-024-02146-X.
28. Cao J, Fu M, Liu J, Liu J, Sun H, Zhuang H. Nursing students' bullying experiences from instructors and nurses in the clinical practice: A qualitative systematic review and meta-synthesis. Nurse Educ Today 2025;146:106511. https://doi.org/10.1016/J.NEDT.2024.106511.
29. Abdelaziz EM, Abu-Snieneh HM. The impact of bullying on the mental health and academic achievement of nursing students. Perspect Psychiatr Care 2022;58:623–34. https://doi.org/10.1111/PPC.12826;REQUESTEDJOURNAL:JOURNAL:17446163;ISSUE:ISSUE:DOI.
30. Janatolmakan M, Piri S, Nouri MA, Khatony A. Empowering nursing students: understanding and addressing bullying experiences in clinical training. BMC Medical Education 2025 25:1 2025;25:192-. https://doi.org/10.1186/S12909-025-06799-3.
31. Machul M, Krasucka KN, Pelc D, Dziurka M. Impact of Workplace Bullying on Nursing Care Quality: A Comprehensive Review. Med Sci Monit 2024;30:e944815-1. https://doi.org/10.12659/MSM.944815.
32. Liao Y, Peng X, Lin M, Zhang H, Xie R, Tian H, et al. Nursing interns' experiences of bullying from clinical instructors and nurses in China: a qualitative study. BMC Nursing 2025 25:1 2025;25:53-. https://doi.org/10.1186/S12912-025-04175-6.
33. Erişen MA, Yılmaz FÖ, Filiz E, Karataş C. Workplace Bullying and Its Impact on Nurses' Turnover Intentions: A Cross-Sectional Study. International Journal of Bullying Prevention 2025 2025:1–9. https://doi.org/10.1007/S42380-025-00305-5.
34. World Health Organization. State of the World's Nursing 2025: Investing in education, jobs, leadership and service delivery. Geneva, Switzerland: World Health Organization; 2025. https://doi.org/https://www.who.int/publications/i/item/9789240110236.
35. Xia G, Zhang Y, Dong L, Huang F, Pu Y, Luo J, et al. The mediating role of organizational commitment between workplace bullying and turnover intention among clinical nurses in China: a cross-sectional study. BMC Nursing 2023 22:1 2023;22:360-. https://doi.org/10.1186/S12912-023-01547-8.
36. Amoo SA, Menlah A, Garti I, Appiah EO. Bullying in the clinical setting: Lived experiences of nursing students in the Central Region of Ghana. PLoS One 2021;16:e0257620. https://doi.org/10.1371/JOURNAL.PONE.0257620.
37. Natasjha E, Tanya H, Isabel M. Coetzee. South African undergraduate nursing students experience of intra-professional violence | Gender and Behaviour. Sabinet African Journals 2017;15.

38. Liao Y, Peng X, Wang H, Xie R, Wang R, Cao X, et al. Experiences of bullying and coping resources in nursing students during clinical placement. Nurse Educ Today 2025;147:106622. https://doi.org/10.1016/J.NEDT.2025.106622.
39. Asamani JA, Bediakon KSB, Boniol M, Munga'tu JK, Akugri FA, Muvango LL, et al. Projected health workforce requirements and shortage for addressing the disease burden in the WHO Africa Region, 2022–2030: a needs-based modelling study. BMJ Glob Health 2024;7. https://doi.org/10.1136/bmjgh-2024-015972.
40. Fernández-Gutiérrez L, Mosteiro-Díaz MP, Borges E, Franco-Correia S. Bullying in Nursing Students: A Cross-Sectional Study. International Journal of Environmental Research and Public Health 2024, Vol 21, Page 1431 2024;21:1431. https://doi.org/10.3390/IJERPH21111431.
41. Machul M, Krasucka KN, Pelc D, Dziurka M. Impact of Workplace Bullying on Nursing Care Quality: A Comprehensive Review. Med Sci Monit 2024;30:e944815-1. https://doi.org/10.12659/MSM.944815.
42. Cao J, Sun H, Zhou Y, Yang A, Zhuang X, Liu J. Nursing students' experiences of workplace violence based on the perspective of gender differences: a phenomenological study. BMC Nursing 2023 22:1 2023;22:387-. https://doi.org/10.1186/S12912-023-01551-Y.
43. Yosep I, Hikmat R, Mardhiyah A, Hazmi H, Hernawaty T. Method of Nursing Interventions to Reduce the Incidence of Bullying and Its Impact on Students in School: A Scoping Review. Healthcare 2022, Vol 10, Page 1835 2022;10:1835. https://doi.org/10.3390/HEALTHCARE10101835.
44. Dafny HA, Waheed N, Cabilan CJ, Johnston S, Pearson V, Adams AM, et al. Effectiveness of interventions for the prevention or management of workplace violence in student nurses during clinical placement: A systematic review. J Adv Nurs 2025;81:1142–71. https://doi.org/10.1111/JAN.16357;ISSUE:ISSUE:DOI.
45. Meleis AI. Transitions Theory: Middle Range and Situation Specific Theories in Nursing Research and Practice. New York: Springer Publishing Company; 2010.
46. Hobfoll SE. Conservation of Resources: A New Attempt at Conceptualizing Stress. American Psychologist 1989;44:513–24. https://doi.org/10.1037/0003-066X.44.3.513.
47. Einarsen SV, Hoel H, Zapf D, Cooper CL. Bullying and Harassment at the Workplace. 3rd Ed. CRC Press; 2020. https://doi.org/10.1201/9780429462528-2.

Figures

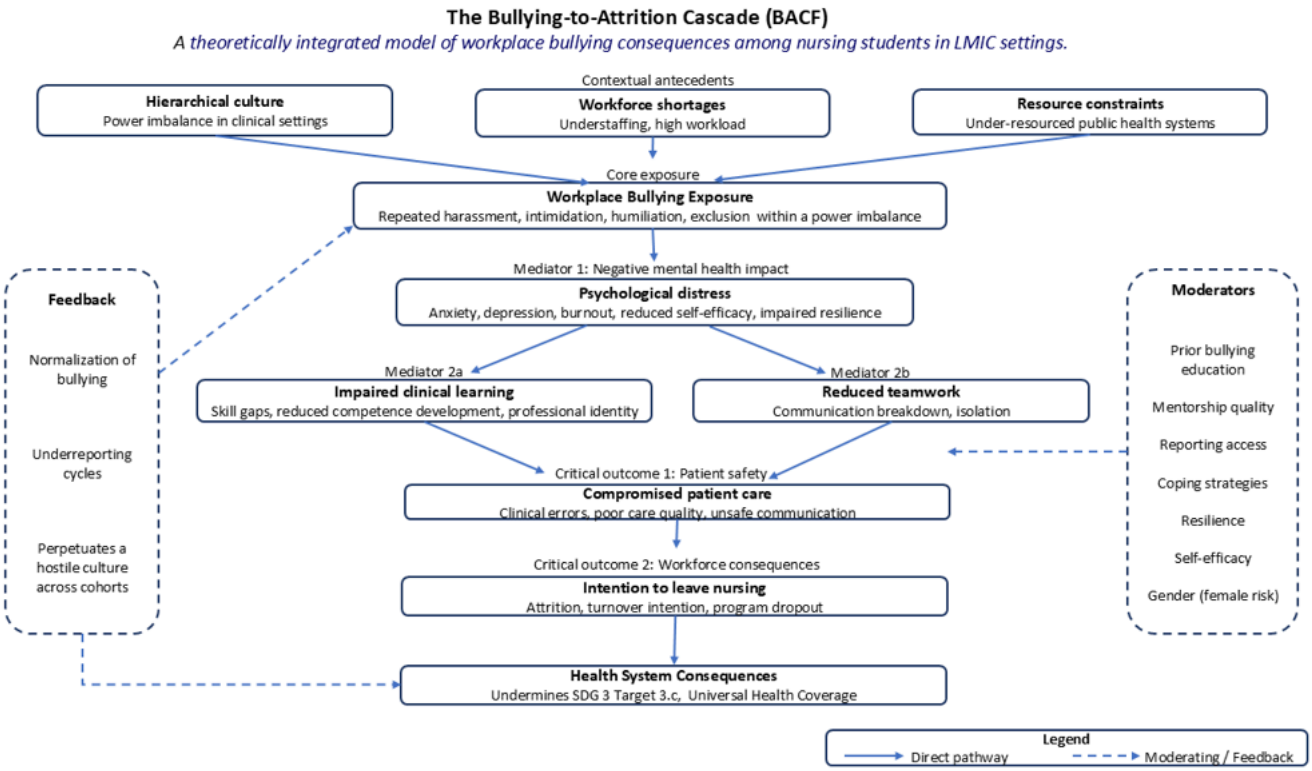


Figure 1

The Bullying-to-Attrition Cascade Framework (BACF)- A theoretically grounded interpretive model of workplace bullying consequences among nursing students in Low- and Middle-income Country clinical settings. Integrating empirical findings, Hierarchical Workplace Violence Theory [7], Conservation of Resources Theory [46], and Meleis' Transitions Theory [45], the BACF posits that structural antecedents amplify student vulnerability to bullying exposure, initiating a sequential cascade of psychological distress, disrupted professional transition, impaired teamwork, compromised patient care, and increased intentions to leave nursing. Protective factors (e.g., prior education) and feedback loops to health systems are included. Dotted arrows indicate potential intervention points.