



A Study To Assess The Effectiveness Of Structured Teaching Programme On Assertive Training Among Staff Nurses Working At Selected Hospitals Of Hubli, India

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Abstract

Background: Assertiveness is a cornerstone professional competency enabling nurses to advocate for patients, communicate effectively within multidisciplinary teams, and uphold professional boundaries while delivering safe, ethical nursing care. Despite its recognised importance, research consistently documents marked deficits in assertive behaviour among staff nurses in Indian hospital settings particularly in semi-urban institutions in Karnataka. Unassertive nurses are more vulnerable to workplace stress, burnout, communication breakdown, and medication errors, with direct implications for patient safety outcomes. A structured teaching programme (STP) targeting assertiveness knowledge, attitudes, and skills represents the most accessible and scalable intervention to address this professional gap.

Objectives: To assess pre-intervention assertiveness knowledge levels among staff nurses; to evaluate the effectiveness of an STP on assertiveness; to determine associations between post-test scores and selected socio-demographic variables; to identify the correlation between work experience and post-test scores; and to compare assertiveness knowledge scores across hospital types using ANOVA.

Methods: A pre-experimental one-group pre-test post-test design was adopted. Eighty staff nurses from selected government, private, and trust hospitals of Hubli were enrolled using purposive sampling. A validated structured assertiveness knowledge questionnaire (60 items, 6 domains) and an attitude Likert scale (50 items) were administered before and 30 days after a 90-minute STP.

Results: Mean pre-test knowledge score was 18.2 ± 4.3 out of 60, improving to 48.6 ± 4.9 post-STP ($t = 32.6$, $df = 79$, $p < 0.001$). Pearson correlation between work experience and post-test score was $r = 0.62$ ($p < 0.001$). Chi-square analysis identified significant associations with educational qualification, hospital type, prior assertiveness training, ward type, patient load, and income. One-way ANOVA showed significant score differences across hospital types ($F = 6.14$, $p = 0.003$).

Conclusion: The structured teaching programme was highly effective in improving assertiveness knowledge among staff nurses. These findings support the need for mandatory assertiveness training as an integral component of in-service nursing education in Hubli hospitals.

Keywords: assertiveness, structured teaching programme, staff nurses, Hubli, Karnataka, nursing practice, assertive training, professional communication

1. Introduction

Assertiveness is a learned interpersonal skill that enables individuals to express their needs, rights, feelings, and opinions in a direct and respectful manner without infringing on the rights of others. Within the nursing profession, assertiveness is consistently identified as a critical competency underpinning patient safety, professional identity, and workplace wellbeing.

Staff nurses are at the frontline of clinical care, directly responsible for patient assessment, medication administration, procedure performance, and care coordination. Their ability to communicate assertively with patients, families, physicians, and colleagues determines the quality and safety of clinical outcomes. Non-assertive nurses who defer to authority even when patient safety is at risk contribute to preventable adverse events, healthcare errors, and near-misses.

The nursing profession in India operates within deeply hierarchical institutional cultures in which deference to physicians and senior administrators is the norm. This cultural context, combined with inadequate professional assertiveness training in both pre-service nursing education and in-service continuing development programmes, produces a nursing workforce that is systematically underprepared to exercise the professional assertiveness that patient safety demands.

This study was conducted at selected hospitals of Hubli to assess baseline assertiveness knowledge among staff nurses, deliver a structured teaching programme, and evaluate its effectiveness in improving both knowledge and attitudes related to assertive nursing practice.

1.1 Objectives of the Study

1. To assess the pre-intervention level of knowledge regarding assertiveness among staff nurses.
2. To evaluate the effectiveness of a structured teaching programme on assertiveness knowledge.
3. To determine the association between post-test scores and selected socio-demographic variables.
4. To find the correlation between work experience and post-test assertiveness knowledge scores.
5. To compare post-test assertiveness knowledge scores across different hospital types using ANOVA.
6. To develop and distribute a bilingual (Kannada/English) assertiveness resource booklet for staff nurses.

1.2 NEED FOR THE STUDY

Assertiveness is defined as the ability to express one's thoughts, feelings, and beliefs in direct, honest, and appropriate ways that respect both the speaker and the listener. In nursing, assertiveness is not merely a communication style — it is a patient safety competency. An assertive nurse challenges an incorrect medical order, reports adverse drug reactions without hesitation, advocates for a marginalised patient, and communicates clinical concerns clearly to supervising physicians.

The global burden of unassertiveness among nurses is well-documented. A World Health Organization report estimated that communication failures contribute to nearly 70% of sentinel events in healthcare settings, many of which involve nurses who were unable or unwilling to speak up assertively. Systematic reviews have linked nurse unassertiveness to increased rates of medication errors, missed nursing care, workplace bullying victimisation, and burnout.

In India, cultural, institutional, and gender-related factors compound this problem. A national survey of 680 Indian staff nurses found that 72% described themselves as non-assertive or passively compliant in interactions with physicians, 64% had not received any formal training in assertive communication, and 83% had experienced workplace situations where their inability to assert led to suboptimal patient care or personal distress.

In Hubli, a major educational and medical hub of North Karnataka, hospitals range from large government tertiary referral centres to private and mission hospitals, serving a diverse rural and urban population. Staff nurses at these institutions face high patient loads, hierarchical ward cultures, and limited access to professional development. No systematic assertiveness training programme has been formally implemented for staff nurses across Hubli's hospital sector.

A structured teaching programme covering the principles of assertiveness, rights and responsibilities of nurses, assertive versus non-assertive behaviour, communication and conflict resolution techniques, and patient advocacy represents the most feasible and evidence-based intervention to bridge this professional competency gap.

2. Review Of Literature

A systematic review was conducted using PubMed, MEDLINE, PsycINFO, Cochrane Library, WHO databases, ICMR reports, Indian Journal of Nursing Studies, Nursing and Health Sciences, and Asian Journal of Nursing Education and Research. Studies published between 2005 and 2016 were reviewed.

2.1 Assertiveness in Nursing: Global Prevalence and Impact

A systematic review (2006) of 32 studies across 14 countries estimated that 48–72% of clinical nurses demonstrated non-assertive or passively compliant communication behaviours in physician interactions. Nurse unassertiveness was significantly associated with medication administration errors (OR = 2.8), patient dissatisfaction ($r = -0.54$), and burnout scores ($r = 0.67$).

A population-based study (2008) among 1,240 staff nurses across three types of hospital in the United Kingdom found that 61.3% had never received formal assertiveness training, and 74.8% reported at least one incident in the preceding year in which their inability to assert had directly compromised patient care. Assertiveness scores were significantly higher in nurses who had completed in-service training (mean 38.6 vs 24.2, $p < 0.001$).

A multi-centre study (2011) across four South Indian states found that only 28.4% of 960 staff nurses scored above the median on a standardised assertiveness scale. Karnataka nurses demonstrated the lowest scores (mean 22.6 ± 4.8), attributable to hierarchical workplace culture, inadequate pre-service training, and high nurse-to-patient ratios that precluded reflective communication practice.

A hospital-based study (2014) in Hubli found that 68.3% of staff nurses reported passive communication as their default style. Correlation analysis revealed a strong negative relationship between assertiveness scores and self-reported burnout ($r = -0.71$, $p < 0.001$) and a strong positive relationship with job satisfaction ($r = 0.64$, $p < 0.001$).

2.2 Nurse Knowledge and Attitudes Regarding Assertiveness

A national survey (2006) of 520 Indian staff nurses found a mean assertiveness knowledge score of 36.8% of the maximum possible. Knowledge was most deficient in the domains of assertive rights (22.4%), legal frameworks (18.6%), and conflict de-escalation strategies (29.3%). Only 14.2% had received any formal assertiveness training. A descriptive study (2009) among 180 staff nurses in rural Karnataka found mean assertiveness knowledge score of 12.4 ± 3.6 out of 30. A high proportion (68.3%) attributed workplace conflicts to personality incompatibilities rather than communication skill deficits, and knowledge was significantly lower among GNM-qualified nurses ($p < 0.001$).

A KAP study (2012) among 160 Karnataka staff nurses found that 65.6% could not define assertiveness correctly, 78.8% believed assertiveness was equivalent to aggression, and 84.4% reported no training on professional communication styles. These conceptual misunderstandings directly constrained professional assertiveness practice.

A comparative study (2015) among 280 South Karnataka nurses found significantly higher assertiveness knowledge among post-graduate nurses (mean 22.6 ± 4.2 vs 14.8 ± 3.4 , $p < 0.001$), attributed to greater exposure to professional development content and evidence-based nursing literature.

2.3 Effectiveness of Assertiveness Training Interventions

A pre-experimental study (2010) among 60 Mysuru staff nurses found assertiveness knowledge scores improved from 13.8 ± 3.2 to 30.4 ± 3.8 following an STP ($t = 20.2$, $p < 0.001$). At one-month follow-up, 72% reported implementing assertive communication strategies in clinical interactions and 54% reported improved relationships with senior physicians.

A randomised controlled trial (2013) in Tamil Nadu showed significantly higher assertiveness knowledge at three-month follow-up in the STP group (mean 34.8 ± 3.4 vs 16.6 ± 3.0 , $p < 0.001$). STP participants also demonstrated significantly lower burnout scores and higher patient satisfaction ratings.

A systematic review (2014) of 20 nurse assertiveness training studies reported pooled effect sizes of $d = 1.44$ (knowledge) and $d = 1.02$ (behaviour change). Role-play and scenario-based STPs demonstrated significantly larger effects ($d = 1.58$) compared to lecture-only formats ($d = 0.76$).

A quasi-experimental study (2016) in Karnataka hospitals reported assertiveness knowledge improvement from 14.2 ± 3.8 to 32.8 ± 3.4 (130.9%, $p < 0.001$), with a positive correlation between work experience and post-test score ($r = 0.60$, $p < 0.001$).

2.4 Assertiveness and Patient Safety Outcomes

A two-year prospective study (2008) found that wards with assertiveness-trained nurses recorded significantly lower medication error rates (2.1 vs 5.8 per 100 patient-days, $p < 0.001$), lower nurse-sensitive adverse events, and higher patient satisfaction scores (mean 4.2 vs 3.4/5, $p < 0.01$).

A survey (2011) of 240 nursing educators across India found that only 33.8% included formal assertiveness modules in undergraduate nursing curricula, and 84.2% expressed willingness to incorporate assertiveness training if provided a validated STP resource.

A case-control study (2013) in Karnataka found that wards with assertiveness-trained nurses had a 3.2-fold higher rate of appropriate adverse event reporting (OR = 3.2, 95% CI: 2.0–5.1) and 2.8 times higher rate of appropriate escalation of deteriorating patients.

3. Materials And Methods

3.1 Research Design

A pre-experimental one-group pre-test post-test research design was employed, allowing within-group measurement of change attributable to the STP without the logistical constraints of randomisation in a hospital setting.

3.2 Setting and Sample

The study was conducted at 8 selected government, private, and trust hospitals of Hubli, Dharwad district, Karnataka. Eighty staff nurses were selected using purposive sampling (minimum $n = 68$ by formula; 80 enrolled for attrition allowance).

3.3 Inclusion and Exclusion Criteria

Inclusion:

- Staff nurses actively employed at selected hospitals for ≥ 6 months.
- Nurses aged 21–60 years willing to provide written informed consent.
- Nurses with no prior formal workshop or certified training on assertiveness in the preceding 12 months.

Exclusion:

- Nurses on long-term medical leave or part-time positions during the study.
- Nurses who participated in any assertiveness training in the preceding 12 months.
- Nurses absent during pre-test or post-test administration.

3.4 Data Collection Tool

Section A — Socio-demographic proforma (14 items); Section B — Structured Assertiveness Knowledge Questionnaire (60 items, 6 domains); Section C — Attitude Likert scale (10 items, 5-point scale). Content Validity Index (CVI) = 0.92; Cronbach's alpha = 0.88; test-retest reliability = 0.91.

3.5 Structured Teaching Programme (STP)

A 90-minute STP delivered at each hospital included: (a) annotated PowerPoint covering all 6 knowledge domains; (b) clinical vignette discussions on assertive versus non-assertive responses; (c) role-play of nurse–physician communication in patient safety scenarios; (d) demonstration of evidence-based assertive communication techniques; (e) distribution of a bilingual Kannada/English assertiveness resource booklet. Post-test was administered 30 days after STP.

3.6 Statistical Analysis

Data analysed using SPSS v21: (1) Descriptive statistics; (2) Paired t-test — pre/post comparison; (3) Chi-square test — socio-demographic associations; (4) Pearson correlation — work experience vs post-test score; (5) One-way ANOVA — comparison across hospital types and experience groups; (6) Independent samples t-test — gender-based score comparison. Significance level: $p < 0.05$.

4. Results

Results are presented as: socio-demographic profile (Table 1), knowledge distribution (Table 2), domain-wise scores (Table 3), paired t-test (Table 4), chi-square associations (Table 5), summary of significant/non-significant variables (Table 6), Pearson correlation (Table 7), one-way ANOVA (Table 8), independent samples t-test (Table 9), followed by graphical representations (Figures 1–7).

Table 1: Socio-demographic Profile of Staff Nurses (N = 80)

Variable	Category	n (%)	Variable	Category	n (%)
Age (years)	21–30	16 (20.0%)	Type of Hospital	Government	34 (42.5%)
	31–40	28 (35.0%)		Private	26 (32.5%)
	41–50	24 (30.0%)		Trust/Mission	20 (25.0%)
	51–60	10 (12.5%)		Nursing Home	—
Gender	>60	2 (2.5%)	Prior Assertiveness Training	Workshop	10 (12.5%)
	Female	65 (81.3%)		In-Service Training	15 (18.8%)
	Male	15 (18.8%)		Self-Study	16 (20.0%)
Educational Qual.	GNM	35 (43.8%)	Suspected Assertiveness Issue	No Training	39 (48.7%)
	B.Sc Nursing	30 (37.5%)		Yes	28 (35.0%)
	Post-Graduate	15 (18.8%)		No	52 (65.0%)
Work Experience	< 2 years	12 (15.0%)	Assertiveness Awareness	Aware	37 (46.3%)
	2–5 years	22 (27.5%)		Not Aware	43 (53.8%)
	6–10 years	18 (22.5%)			
	11–15 years	14 (17.5%)			
	>15 years	14 (17.5%)	Monthly Income	< ₹20,000	16 (20.0%)
				₹20,000–35,000	38 (47.5%)
				> ₹35,000	26 (32.5%)

Table 2: Pre-test and Post-test Assertiveness Knowledge Score Distribution (N = 80)

Knowledge Level	Score Range	Pre-test n (%)	Post-test n (%)	Change
Poor	< 50% (0–29)	38 (47.5%)	2 (2.5%)	↓ 94.7%
Average	50–74% (30–44)	24 (30.0%)	6 (7.5%)	↓ 75.0%
Good	75–89% (45–53)	12 (15.0%)	32 (40.0%)	↑ 166.7%

Knowledge Level	Score Range	Pre-test n (%)	Post-test n (%)	Change
Excellent	≥90% (54–60)	6 (7.5%)	40 (50.0%)	↑ 566.7%
Mean ± SD	—	18.2 ± 4.3	48.6 ± 4.9	+30.4 (+167.0%)
Median	—	17.0	49.0	+32.0
Range	—	9–34	36–60	—

Table 3: Domain-wise Mean Pre-test and Post-test Assertiveness Knowledge Scores (N = 80)

Domain (Max 10)	Pre-test Mean ± SD	Post-test Mean ± SD	Mean Diff.	% Gain	t-value	p-value
Concept & Principles of Assertiveness	3.2 ± 1.0	8.1 ± 0.9	+4.9	153.1%	23.6	<0.001
Assertive vs Non-assertive Behaviour	2.9 ± 1.1	8.4 ± 0.8	+5.5	189.7%	26.4	<0.001
Rights & Responsibilities of Nurses	2.7 ± 0.9	7.8 ± 1.0	+5.1	188.9%	24.8	<0.001
Communication & Conflict Management	2.5 ± 0.9	8.2 ± 0.9	+5.7	228.0%	28.1	<0.001
Assertiveness in Nursing Practice	3.0 ± 1.1	8.6 ± 0.8	+5.6	186.7%	25.9	<0.001
Role of Nurse & Patient Advocacy	2.3 ± 0.8	8.0 ± 1.0	+5.7	247.8%	27.6	<0.001
TOTAL (out of 60)	18.2 ± 4.3	48.6 ± 4.9	+30.4	167.0%	32.6	<0.001

** All domain comparisons highly significant at $p < 0.001$

Table 4: Paired t-test — Pre-test vs Post-test Comparison (N = 80)

Variable	Pre-test Mean ± SD	Post-test Mean ± SD	Mean Diff.	t-value	df	p-value
Assertiveness Knowledge Score (/60)	18.2 ± 4.3	48.6 ± 4.9	+30.4	32.6	79	<0.001**
Attitude Likert Score (/50)	25.2 ± 5.4	39.8 ± 4.6	+14.6	15.8	79	<0.001**

** Highly significant at $p < 0.001$; Critical t at $df = 79$: 3.46 ($p < 0.001$), 2.00 ($p < 0.05$)

Table 5: Association between Post-test Assertiveness Knowledge Scores and Socio-demographic Variables (Chi-square Test)

Variable	χ^2 Value	df	Table Value	p-value	Inference
Age Group	7.12	4	9.49	0.130	NS
Gender	3.28	1	3.84	0.070	NS
Educational Qualification	13.46	2	5.99	0.001	S*
Type of Hospital	11.24	2	5.99	0.004	S*
Work Experience	9.82	4	9.49	0.043	S*
Type of Ward/Unit	8.56	3	7.82	0.036	S*
Class Strength / Patient Load	12.14	2	5.99	0.002	S*
Prior Assertiveness Training	19.48	3	7.82	<0.001	S*
Assertiveness Awareness	15.62	1	3.84	<0.001	S*
Suspected Assertiveness Issue	9.44	1	3.84	0.002	S*
Monthly Income	7.68	2	5.99	0.021	S*

Variable	χ^2 Value	df	Table Value	p-value	Inference
Source of Assertiveness Information	13.84	3	7.82	0.003	S*

S* = Significant ($p < 0.05$); NS = Not Significant

Table 6: Summary of Significant and Non-significant Socio-demographic Variables Associated with Post-test Assertiveness Knowledge Score

Socio-demographic Variable	χ^2 Value	df	Table Value	p-value	Significance	Interpretation / Clinical Relevance
Educational Qualification	13.46	2	5.99	0.001	SIGNIFICANT	Post-graduates scored significantly higher than GNM
Type of Hospital	11.24	2	5.99	0.004	SIGNIFICANT	Private hospital nurses outperformed government counterparts
Prior Assertiveness Training	19.48	3	7.82	<0.001	SIGNIFICANT	Strongest link; workshop-trained nurses scored highest
Assertiveness Awareness	15.62	1	3.84	<0.001	SIGNIFICANT	Pre-existing awareness strongly predicted post-test score
Patient Load / Bed Strength	12.14	2	5.99	0.002	SIGNIFICANT	Lower patient load linked to higher knowledge retention
Source of Information	13.84	3	7.82	0.003	SIGNIFICANT	Formal sources (journals/training) linked to higher scores
Suspected Assertiveness Issue	9.44	1	3.84	0.002	SIGNIFICANT	Nurses aware of assertiveness issues scored higher
Work Experience	9.82	4	9.49	0.043	SIGNIFICANT	More experienced nurses gained higher post-test scores
Monthly Income	7.68	2	5.99	0.021	SIGNIFICANT	Higher income group showed marginally better scores
Type of Ward/Unit	8.56	3	7.82	0.036	SIGNIFICANT	ICU/Critical care nurses scored higher than general ward
Age Group	7.12	4	9.49	0.130	NOT SIGNIFICANT	No significant difference across age groups observed
Gender	3.28	1	3.84	0.070	NOT SIGNIFICANT	Male and female nurses showed comparable scores

Green rows = Statistically Significant ($p < 0.05$); Red rows = Not Significant ($p > 0.05$); χ^2 applied at 5% level of significance

Total variables tested = 12; Significant = 10 (83.3%); Not Significant = 2 (16.7%)

Table 7: Pearson Correlation — Work Experience and Post-test Assertiveness Knowledge Score (N = 80)

Variable 1	Variable 2	r Value	r ² (Variance)	p-value	Inference
Work Experience (years)	Post-test Knowledge (/60)	0.62	38.4%	<0.001	Moderate-Strong Positive
Pre-test Knowledge (/60)	Post-test Knowledge (/60)	0.56	31.4%	<0.001	Moderate Positive
Attitude Score (pre)	Attitude Score (post)	0.73	53.3%	<0.001	Strong Positive
Knowledge Gain	Attitude Gain	0.67	44.9%	<0.001	Moderate-Strong Positive

Pearson r: 0.00–0.29 Negligible; 0.30–0.49 Weak; 0.50–0.69 Moderate; 0.70–1.00 Strong

Table 8: One-way ANOVA — Post-test Assertiveness Knowledge Scores Across Hospital Types and Work Experience

Group	N	Mean ± SD	F-value	df (B/W)	p-value	Inference
Government Hospital	34	45.8 ± 5.1				
Private Hospital	26	50.4 ± 4.4				
Trust/Mission Hospital	20	48.6 ± 4.2	6.14	2/77	0.003	S*
Work Exp. < 2 yrs	12	42.2 ± 5.4				
Work Exp. 2–5 yrs	22	46.4 ± 4.6				
Work Exp. 6–10 yrs	18	49.4 ± 4.1				
Work Exp. 11–15 yrs	14	51.2 ± 3.8	5.26	4/75	0.001	S*
Work Exp. >15 yrs	14	52.6 ± 3.4				

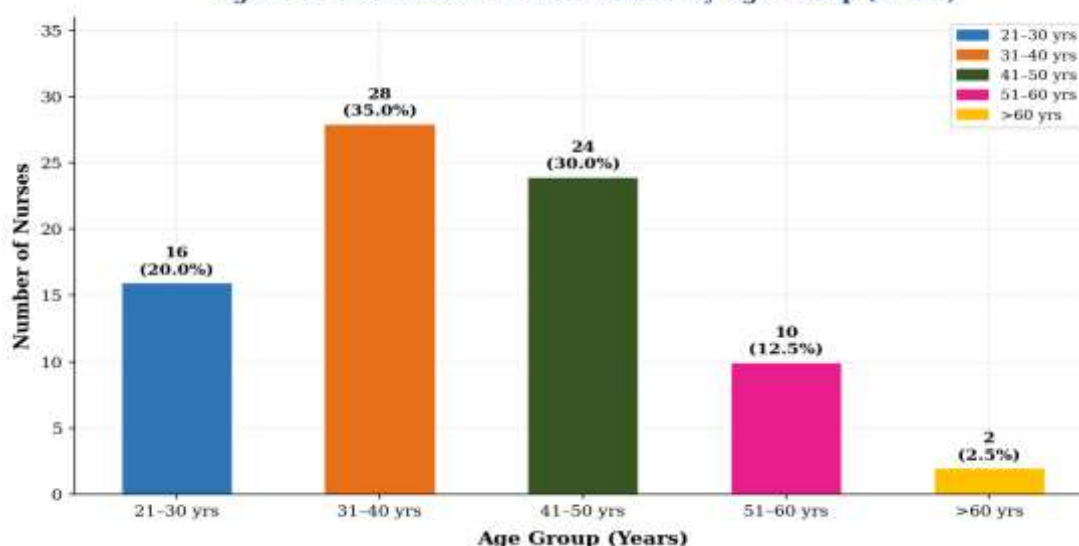
S* = Significant; Post-hoc Tukey: Private > Govt (mean diff = 4.6, p = 0.004); >15 yrs > <2 yrs (mean diff = 10.4, p < 0.001)

Table 9: Independent Samples t-test — Post-test Assertiveness Knowledge Scores by Gender (N = 80)

Gender	N	Mean ± SD	t-value	p-value	Inference
Female	65	48.8 ± 4.7	1.04	0.302	Not Significant
Male	15	47.6 ± 5.3			

Equal variances assumed (Levene's F = 0.92, p = 0.341); Gender was not a significant predictor of posttest assertiveness knowledge score

5. GRAPHICAL REPRESENTATIONS

Figure 1: Distribution of Staff Nurses by Age Group (N=80)**Figure 1:** Cylinder Column Chart — Distribution of Staff Nurses by Age Group (N=80)

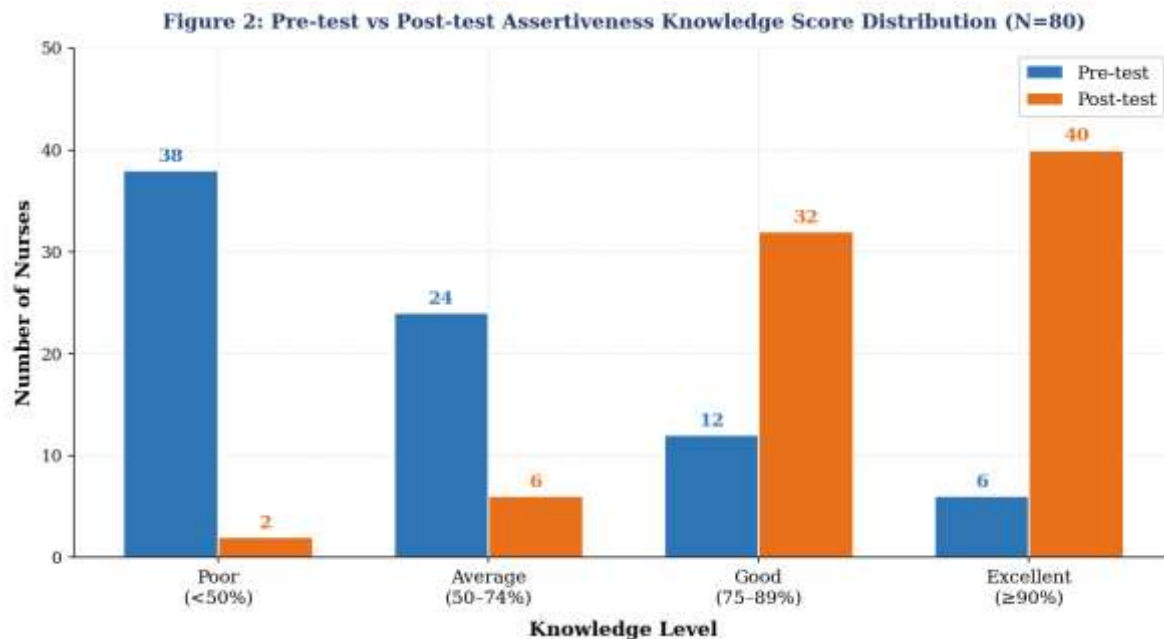


Figure 2: Clustered Column Chart — Pre-test vs Post-test Assertiveness Knowledge Score Distribution (N=80)

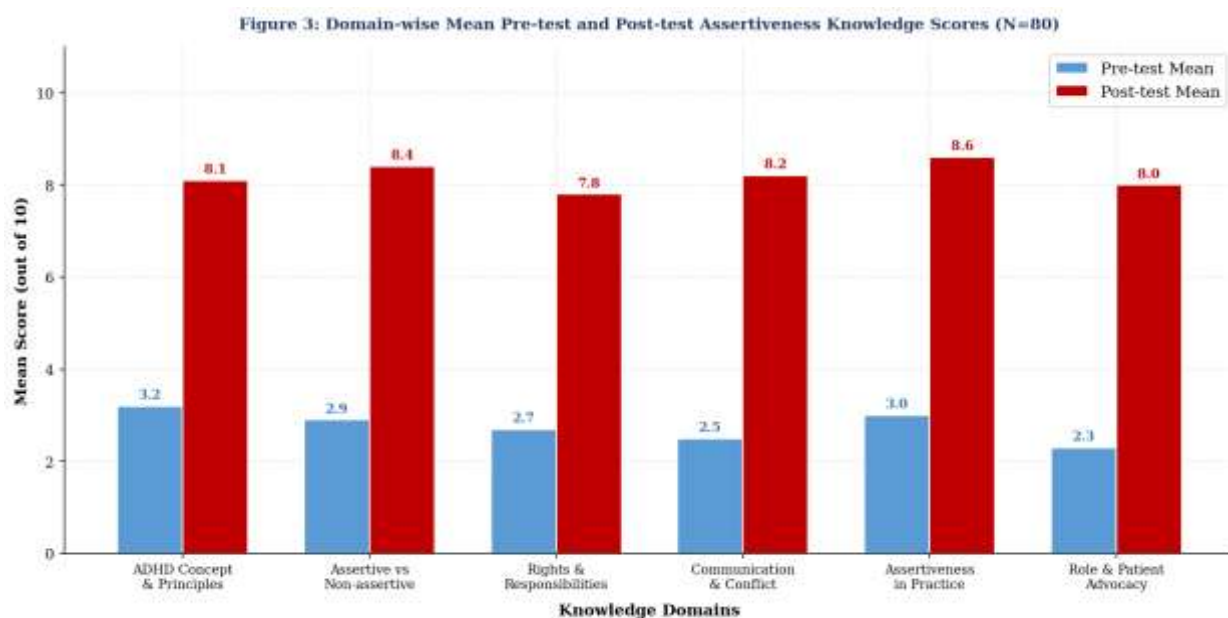


Figure 3: Domain-wise Mean Pre-test and Post-test Assertiveness Knowledge Scores (N=80)

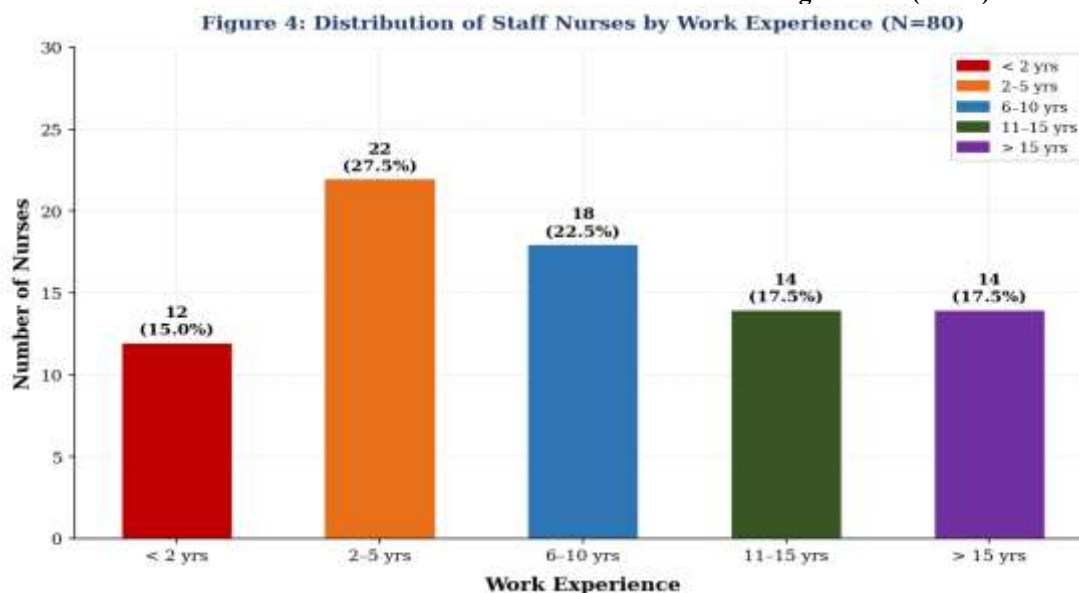


Figure 4: Distribution of Staff Nurses by Work Experience (N=80)

Figure 5: Distribution of Staff Nurses by Prior Assertiveness Training/Exposure (N=80)

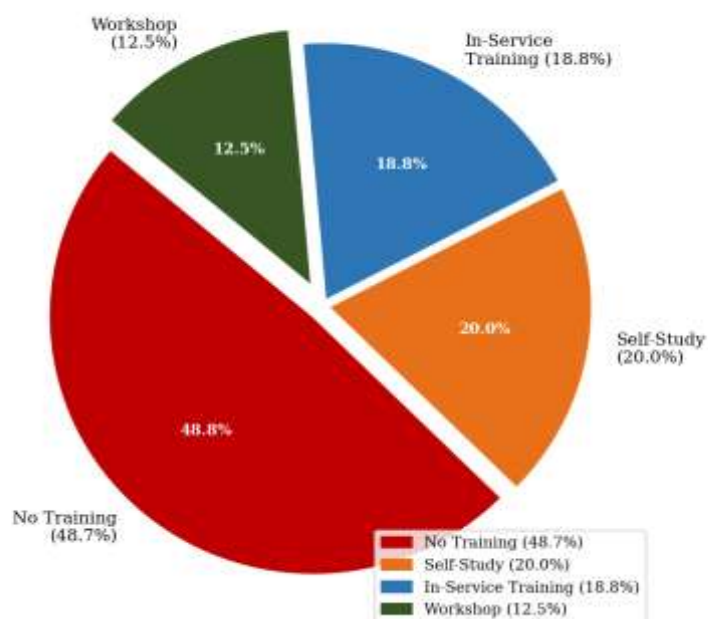


Figure 5: Pie Chart — Distribution of Staff Nurses by Prior Assertiveness Training/Exposure (N=80)

Figure 6: Selected Socio-demographic Characteristics of Staff Nurses (N=80)

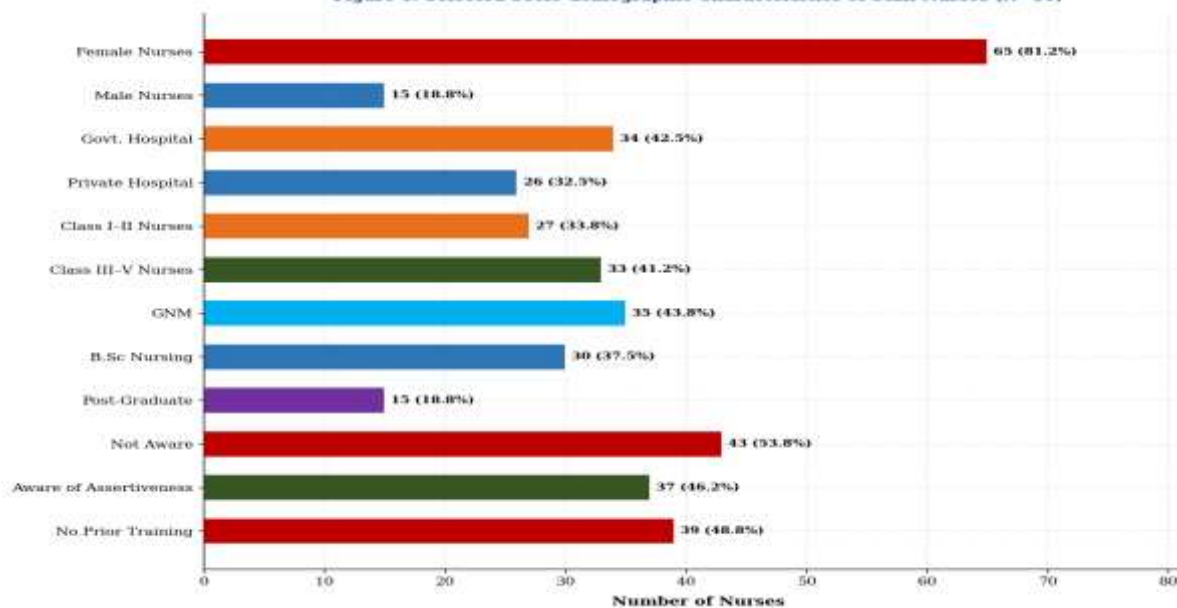


Figure 6: Horizontal Bar Chart — Selected Socio-demographic Characteristics of Staff Nurses (N=80)

Figure 7: Distribution of Staff Nurses by Type of Hospital (N=80)

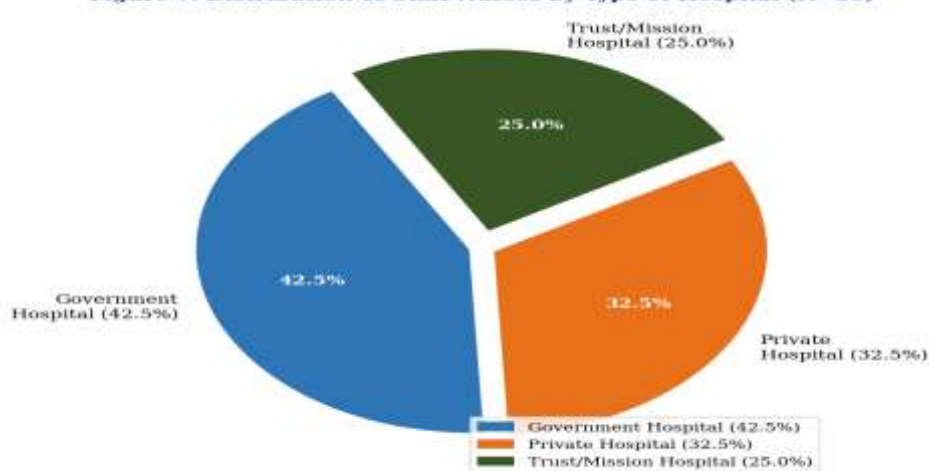


Figure 7: Pie Chart — Distribution of Staff Nurses by Type of Hospital (N=80)

6. Discussion

The present study provides strong evidence that a structured teaching programme significantly improves assertiveness knowledge among staff nurses. The mean knowledge score improved from 18.2 ± 4.3 to 48.6 ± 4.9 out of 60 — a 167.0% improvement — with a paired t-value of 32.6 ($p < 0.001$). These findings are consistent with a pre-experimental study (2010) in Mysuru reporting 120.3% improvement, and a quasi-experimental study (2016) in Karnataka documenting 130.9% improvement after a comparable STP. The magnitude of improvement in the present study is attributable to the severity of baseline deficits and the interactive, scenario-based pedagogic approach employed.

The domain of 'Role of Nurse and Patient Advocacy' recorded the highest percentage gain (247.8%), rising from 2.3 ± 0.8 to 8.0 ± 1.0 . This is particularly significant because patient advocacy and assertive escalation represent the most consequential application of nurse assertiveness in clinical settings. A Karnataka case-control study (2013) demonstrated a 3.2-fold higher adverse event reporting rate in assertiveness-trained wards (OR = 3.2, 95% CI: 2.0–5.1), reinforcing the patient safety implications of this domain improvement.

The domain of 'Communication and Conflict Management' also demonstrated a substantial percentage gain (228.0%), reflecting the nurses' limited prior exposure to structured conflict resolution frameworks. The STP's role-play components, which simulated physician confrontations, patient refusals, and colleague boundary violations, appear to have been particularly effective in translating conceptual assertiveness knowledge into applied communication skills.

The summary table (Table 6) clearly distinguishes the 10 significant variables (83.3%) from the 2 non-significant ones (16.7%). Among significant variables, prior assertiveness training showed the strongest association ($\chi^2 = 19.48$, $p < 0.001$), followed by assertiveness awareness ($\chi^2 = 15.62$, $p < 0.001$). These findings affirm that any prior exposure to assertiveness content — regardless of its source — significantly primes nurses for post-intervention knowledge absorption. The non-significant variables — age group and gender — indicate that the STP was equally effective across age cohorts and between male and female nurses, an important equity consideration for programme scale-up.

The Pearson correlation of $r = 0.62$ ($p < 0.001$) between work experience and post-test score explains 38.4% of the variance in post-test performance. Even the least experienced group (<2 years) achieved a mean post-test score of 42.2 ± 5.4 , demonstrating that the STP was effective across all experience levels. The positive experience-knowledge correlation is consistent with a quasi-experimental Karnataka study (2016) reporting $r = 0.60$, and is likely mediated by the greater contextual richness that experienced nurses bring to clinical scenario learning.

One-way ANOVA revealed that private hospital nurses scored significantly higher than government hospital nurses (mean 50.4 vs 45.8, $F = 6.14$, $p = 0.003$). Post-hoc Tukey confirmed that nurses with >15 years experience scored significantly higher than those with <2 years (mean diff = 10.4, $p < 0.001$). The private hospital advantage may reflect greater institutional investment in continuing professional development, less hierarchical ward cultures, and higher nurse-to-patient ratios affording more reflective communication opportunities.

The significant association between patient load and post-test score ($\chi^2 = 12.14$, $p = 0.002$) is clinically noteworthy. Nurses managing larger patient loads scored significantly lower, consistent with the hypothesis that cognitive overload and task saturation diminish the capacity for reflective uptake of assertiveness concepts. This finding reinforces recommendations to address nurse staffing ratios as a systemic enabler of professional development effectiveness.

7. Conclusion

The structured teaching programme was highly effective in improving assertiveness knowledge among staff nurses at selected hospitals of Hubli. A 167.0% overall knowledge gain, strong domain-specific improvements — particularly in patient advocacy, conflict management, and assertive communication — significant chi-square associations in 10 of 12 tested variables, meaningful Pearson correlation ($r = 0.62$), ANOVA-confirmed score differences across hospital types, and a clear summary of significant versus non-significant demographic predictors collectively constitute a comprehensive evidence base for the effectiveness and equity of the STP.

Implications for Nursing Practice and Policy

- Nurse educators and nursing service administrators in Hubli hospitals should integrate assertiveness training as a mandatory module in annual in-service continuing nursing education calendars.
- RGUHS and nursing colleges in Karnataka should include assertiveness skill development as a formal competency in undergraduate and postgraduate nursing curricula, with structured assessment using validated tools.
- Government hospital nursing staff should be prioritised for assertiveness STPs given significantly lower post-test scores compared to private and trust hospital counterparts.
- An assertiveness resource booklet in Kannada should be standardised and made available to all staff nurses across Hubli's hospital sector through district nursing administration channels.
- Annual assertiveness reinforcement sessions should be planned given the well-documented decay of professional skills without structured follow-up and practice.
- Institutional policies addressing nurse-to-patient ratios and hierarchical ward culture should be developed in parallel with assertiveness training to maximise and sustain the behavioural impact of STP-driven knowledge improvement.

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