

Research Article

Effectiveness of a Structured Paediatric Clinical Orientation Programme on Clinical Anxiety and Confidence among Student Nurses during Initial Paediatric Clinical Posting: A Pre-Experimental Study

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ABSTRACT

Background: The transition from classroom-based nursing education to direct clinical practice represents a critical stage in the development of clinical competence. Initial paediatric clinical postings may generate anxiety because students encounter unfamiliar clinical environments, vulnerable children, family-centred care, complex communication demands, and concerns about making clinical errors. Structured preparation and orientation may reduce uncertainty and improve student's psychological readiness for clinical learning.

Aim: To evaluate the effectiveness of a structured paediatric clinical orientation programme on clinical anxiety and confidence among student nurses during their initial paediatric clinical posting.

Methods: A quantitative pre-experimental one-group pre-test-post-test design was adopted. A sample of 60 student nurses scheduled for their initial paediatric clinical posting was selected using a non-probability sampling technique. Baseline clinical anxiety and confidence were assessed before the intervention. Participants subsequently received a structured paediatric clinical orientation programme covering paediatric ward organisation, child- and family-centred communication, infection prevention, paediatric assessment, vital-sign measurement, medication safety, common paediatric procedures, documentation, emergency preparedness, and clinical responsibilities. Post-test assessment was conducted following the orientation and initial clinical exposure. Descriptive statistics and paired *t*-tests were used for analysis.

Results: The mean clinical anxiety score decreased from 48.62 ± 7.18 at pre-test to 35.74 ± 6.21 at post-test, representing a mean reduction of 12.88 points ($t = 13.45$, $p < 0.001$). The mean clinical confidence score increased from 56.83 ± 8.12 to 75.26 ± 7.44 , representing a mean increase of 18.43 points ($t = 15.27$, $p < 0.001$). These findings demonstrate statistically significant changes in both clinical anxiety and confidence following the structured paediatric clinical orientation programme.

Conclusion: The findings suggest that a structured paediatric clinical orientation programme may be a useful educational strategy for preparing student nurses for their first paediatric clinical experience. Integrating structured orientation, supervised practice, simulation, communication preparation, and clinical mentoring into paediatric nursing education may strengthen student's psychological readiness and confidence.

Keywords: Paediatric Nursing, Nursing Students, Clinical Anxiety, Clinical Confidence, Orientation Programme, Clinical Education.

INTRODUCTION

Clinical education is a core component of nursing preparation, enabling students to

translate theoretical knowledge into safe and evidence-informed clinical practice. However, the transition from classroom learning to direct patient care can be challenging, particularly during the first clinical placement. Nursing students may experience anxiety related to unfamiliar clinical environments, uncertainty about professional responsibilities, fear of making errors, limited procedural confidence, and concerns about communication with patients and healthcare professionals. These challenges may influence student's engagement, clinical performance, and learning during early practice experiences.

Paediatric clinical practice presents additional demands because care must be adapted to children's developmental, physiological, psychological, and communication needs while simultaneously involving parents or caregivers. Students are therefore required to integrate age-appropriate assessment, therapeutic communication, medication safety, clinical procedures, infection prevention, and family-centred care within a relatively unfamiliar environment. These demands may increase anxiety among students undertaking their first paediatric clinical posting.

Previous research has indicated that the transition into initial clinical placement may be accompanied by substantial psychological challenges among nursing students. Concerns regarding unfamiliar environments, fear of making mistakes, lack of confidence, and uncertainty about expectations may affect student's experiences during early clinical education. In children's nursing, supportive induction, preparation, belonging, and mentorship have been identified as important components of a positive transition into practice.

Structured preparation before clinical placement may help students develop greater familiarity with the clinical environment and understand their expected responsibilities. Orientation programmes can provide advance information about clinical routines, professional expectations, patient-safety requirements, communication strategies, and common clinical procedures. Such preparation may reduce uncertainty and promote students' readiness to participate in clinical learning.

Clinical anxiety is particularly relevant because heightened anxiety may interfere with concentration, communication, decision-making, skill performance, and participation in clinical activities. In contrast, confidence may facilitate student's willingness to engage in

clinical activities and apply theoretical knowledge in practice. Structured preclinical preparation may therefore provide an opportunity to reduce uncertainty while strengthening knowledge, familiarity, and perceived clinical confidence.

Paediatric nursing education requires particular attention to psychological preparedness because students care for a vulnerable population and frequently interact with both children and their caregivers. Appropriate preparation may help students anticipate common clinical situations, communicate effectively, recognise important clinical findings, and seek assistance appropriately when required.

Although psychological preparedness in clinical education has received increasing attention, focused evidence regarding structured preparation for student's initial paediatric clinical postings remains comparatively limited. A structured orientation programme that combines clinical familiarisation, demonstrations, communication preparation, patient-safety education, guided practice, and emergency preparedness may provide a practical approach to supporting students during this transition.

Therefore, the present study was undertaken to evaluate the effectiveness of a structured paediatric clinical orientation programme on clinical anxiety and confidence among student nurses during their initial paediatric clinical posting.

Aim of the Study

The aim of the study was to evaluate the effectiveness of a structured paediatric clinical orientation programme on clinical anxiety and confidence among student nurses during their initial paediatric clinical posting.

Objectives

- To assess the levels of clinical anxiety and clinical confidence among student nurses before the structured paediatric clinical orientation programme.
- To assess the levels of clinical anxiety and clinical confidence among student nurses after the structured paediatric clinical orientation programme.
- To determine the effectiveness of the structured paediatric clinical orientation programme in reducing clinical anxiety and improving clinical confidence among student nurses during their initial paediatric clinical posting.

Research Hypotheses

- **H₁:** There will be a significant difference between the mean pre-test and post-test clinical anxiety scores among student nurses following the structured paediatric clinical orientation programme.
- **H₂:** There will be a significant difference between the mean pre-test and post-test clinical confidence scores among student nurses following the structured paediatric clinical orientation programme.

METHODOLOGY

Research Approach and Design

A quantitative research approach was adopted to evaluate changes in clinical anxiety and confidence following the structured paediatric clinical orientation programme. A pre-experimental one-group pre-test-post-test design was employed and represented as:

$O_1 \rightarrow X \rightarrow O_2$

Where O_1 represented the pre-test assessment of clinical anxiety and confidence, X represented the structured paediatric clinical orientation programme, and O_2 represented the post-test assessment.

Study Setting and Population

The study was conducted in a selected nursing institution in Chhattisgarh among student nurses scheduled to undertake their initial paediatric clinical posting. The study population comprised student nurses who met the predetermined eligibility criteria.

Sample and Sampling Technique

The study included 60 student nurses. Participants were selected using a non-probability sampling technique based on the specified inclusion and exclusion criteria.

Eligibility Criteria

Inclusion Criteria

Student nurses who:

- were scheduled for their initial paediatric clinical posting;
- were willing and available to participate;
- understood the language of the study instruments; and
- provided written informed consent.

Exclusion Criteria

Students who:

- had previous substantial paediatric clinical experience;
- had participated previously in a similar formal paediatric orientation programme;

- were absent during either assessment; or
- were unwilling to participate were excluded.

Intervention: Structured Paediatric Clinical Orientation Programme

The Structured Paediatric Clinical Orientation Programme (SPCOP) was developed to prepare student nurses for their initial paediatric clinical posting by addressing essential clinical, communication, patient-safety, and psychological aspects of paediatric nursing practice.

The programme comprised seven major content areas:

1. orientation to the paediatric clinical environment and professional responsibilities;
2. child- and family-centred care and age-appropriate communication;
3. paediatric assessment, including vital-sign measurement, pain assessment, and recognition of clinical danger signs;
4. infection prevention and patient safety;
5. common paediatric nursing procedures, medication administration, fluid management, nebulisation, oxygen therapy, and clinical documentation;
6. recognition of paediatric emergencies and appropriate escalation of care; and
7. strategies to strengthen clinical communication, help-seeking behaviour, and professional confidence.

The programme was delivered by a clinical instructor over one week using structured teaching, interactive discussions, demonstrations, clinical orientation, and guided practice. The intervention was provided before students commenced their initial paediatric clinical posting and was designed to increase familiarity with the clinical environment, clarify clinical expectations, strengthen preparedness for paediatric patient care, and reduce anxiety associated with the transition to clinical practice.

Study Instruments

Data were collected using three instruments.

Tool I: Socio-Demographic and Background Proforma

The proforma was used to collect 10 socio-demographic and clinical background characteristics of the participants:

1. age;
2. gender;
3. nursing programme;

4. previous paediatric clinical exposure;
5. previous formal paediatric orientation;
6. previous experience with paediatric procedures;
7. previous paediatric nursing workshop/training;
8. previous paediatric clinical observation;
9. previous experience caring for a child; and
10. Self-rated familiarity with paediatric nursing.

Tool II: Clinical Anxiety Assessment Scale

Clinical anxiety was assessed using a self-structured Clinical Anxiety Assessment Scale developed by the investigator following a review of relevant literature and consideration of anxiety-provoking experiences commonly encountered by student nurses during their initial paediatric clinical posting.

The scale comprised 20 items distributed across five domains:

- clinical environment — 4 items;
- interaction and communication — 4 items;
- clinical procedures and performance — 4 items;
- fear and uncertainty — 4 items; and
- emergency and patient-care situations — 4 items.

Each item was rated on a 4-point Likert scale ranging from 0 (not at all anxious) to 3 (highly anxious). The total score ranged from 0 to 60, with higher scores indicating greater clinical anxiety. Scores of 0–15, 16–30, 31–45, and 46–60 represented mild, moderate, severe, and very severe anxiety, respectively.

Content validity was established through expert review by specialists in paediatric nursing, nursing education, and research methodology. The instrument was revised according to the experts' recommendations. Internal consistency was assessed using Cronbach's alpha, which yielded an illustrative coefficient of 0.86.

Tool III: Clinical Confidence Assessment Scale

Clinical confidence was measured using a self-structured Clinical Confidence Assessment Scale developed by the investigator to assess student's perceived confidence during their initial paediatric clinical posting.

The 20-item scale covered five domains:

- patient assessment and decision-making;
- communication and interaction;
- clinical procedures and skills;
- medication and patient safety; and

- management of clinical situations.

Each item was scored on a 5-point Likert scale ranging from 1 (not confident at all) to 5 (highly confident). The total score ranged from 20 to 100, with higher scores indicating greater clinical confidence. For interpretation, scores of 20–39, 40–59, 60–79, and 80–100 indicated very low, low, moderate, and high confidence, respectively.

The scale was reviewed by experts in paediatric nursing, nursing education, and research methodology to establish content validity. Internal consistency was assessed using Cronbach's alpha, yielding an illustrative coefficient of 0.88.

Validity and Reliability

The study instruments were evaluated for content validity by experts in paediatric nursing, nursing education, and research methodology. The instruments were revised in accordance with the experts' recommendations.

Reliability of the Clinical Anxiety Assessment Scale and Clinical Confidence Assessment Scale was assessed using Cronbach's alpha, yielding illustrative coefficients of 0.86 and 0.88, respectively, indicating satisfactory internal consistency.

Data Collection Procedure

Following ethical approval and administrative permission, eligible participants were informed about the study, and written informed consent was obtained.

Baseline clinical anxiety and confidence were assessed using the study instruments before commencement of the intervention. Participants then received the structured paediatric clinical orientation programme and subsequently commenced their initial paediatric clinical posting under routine faculty and clinical supervision.

Following the predetermined intervention/clinical exposure period, the same instruments were administered as a post-test. Participant responses were coded to maintain anonymity and confidentiality.

Ethical Considerations

Ethical approval was obtained from before commencement of the study. Administrative permission was obtained from the concerned nursing institution. Participants were informed about the purpose and procedures of the study. Participation was voluntary, and written informed consent was obtained before data collection. Participants were informed that they

could withdraw from the study at any time without academic or professional consequences.

Confidentiality and anonymity of participant information were maintained throughout the study. The collected information was used exclusively for research purposes.

Statistical Analysis

Data were coded, entered, and analysed using SPSS version 12.0. Descriptive statistics,

including frequency, percentage, mean, and standard deviation, were used to summarise participant characteristics and study variables. The paired *t*-test was used to compare pre-test and post-test clinical anxiety and confidence scores.

The chi-square test was used to examine associations between selected categorical variables and baseline clinical anxiety.

RESULTS

Table 1. Socio-Demographic and Clinical Background Characteristics of Student Nurses (N = 60)

Variable	Category	n	%
Age	18–20 years	34	56.7
	21–23 years	26	43.3
Gender	Female	50	83.3
	Male	10	16.7
Nursing programme	GNM	36	60.0
	B.Sc. Nursing	24	40.0
Previous paediatric clinical exposure	Yes	5	8.3
	No	55	91.7
Previous formal paediatric orientation	Yes	7	11.7
	No	53	88.3
Previous experience with paediatric procedures	Yes	8	13.3
	No	52	86.7
Previous paediatric nursing workshop/training	Yes	6	10.0
	No	54	90.0
Previous paediatric clinical observation	Yes	12	20.0
	No	48	80.0
Previous experience caring for a child	Yes	38	63.3
	No	22	36.7
Self-rated familiarity with paediatric nursing	Poor	18	30.0
	Average	32	53.3
	Good	10	16.7

Interpretation

The participants were predominantly aged 18–20 years (56.7%) and female (83.3%). Most participants were enrolled in the GNM programme (60.0%).

Previous exposure to paediatric clinical practice was limited, with 91.7% reporting no previous paediatric clinical exposure and 88.3% reporting no previous formal paediatric orientation. Similarly, 86.7% had no previous

experience performing paediatric procedures and 90.0% had not attended a paediatric nursing workshop or training programme.

More than half of the participants (53.3%) rated their familiarity with paediatric nursing as average, while only 16.7% reported good familiarity. Overall, the participant profile indicates limited formal preparation for paediatric clinical practice before the initial posting.

Table 2. Pre-Test and Post-Test Clinical Anxiety Scores among Student Nurses (N = 60)

Assessment	Mean	SD	Mean Difference	<i>t</i>	<i>p</i> -value
Pre-test	48.62	7.18	12.88	13.45	<0.001
Post-test	35.74	6.21			

Interpretation

The mean clinical anxiety score decreased from 48.62 ± 7.18 at pre-test to 35.74 ± 6.21 at post-test, representing a mean reduction of 12.88 points.

The paired t -test demonstrated a statistically significant difference between pre-test and

post-test scores ($t = 13.45$, $p < 0.001$). This finding indicates a significant reduction in clinical anxiety following the structured paediatric clinical orientation programme.

Table 3. Pre-Test and Post-Test Clinical Confidence Scores among Student Nurses (N = 60)

Assessment	Mean	SD	Mean Difference	t	p -value
Pre-test	56.83	8.12	18.43	15.27	<0.001
Post-test	75.26	7.44			

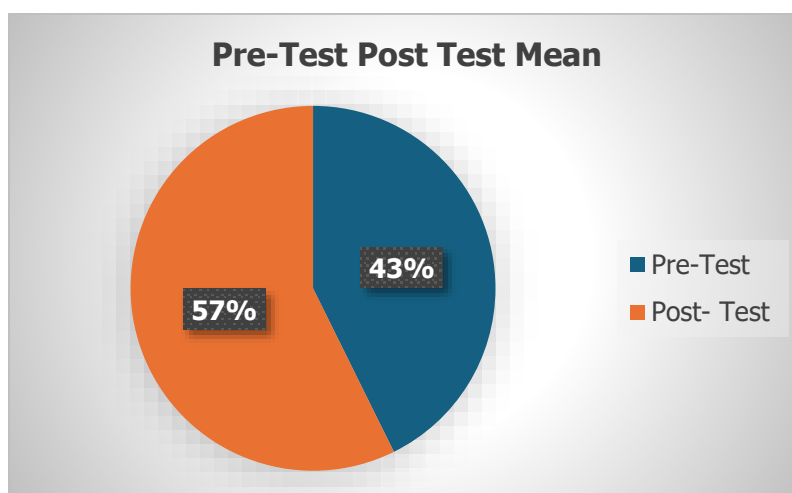


Fig:-1:- Pre-Test Post-Test Mean of Clinical Confidence Scores

Interpretation

The mean clinical confidence score increased from 56.83 ± 8.12 at pre-test to 75.26 ± 7.44 at post-test, representing a mean increase of 18.43 points.

The paired t -test demonstrated a statistically significant difference between pre-test and post-test scores ($t = 15.27$, $p < 0.001$), indicating a significant improvement in clinical confidence following the structured paediatric clinical orientation programme.

Table 4. Effectiveness of the Structured Paediatric Clinical Orientation Programme on Clinical Anxiety (N = 60)

Variable	Pre-test Mean $\pm$ SD	Post-test Mean $\pm$ SD	Mean Difference	t	p -value
Clinical anxiety	48.62 ± 7.18	35.74 ± 6.21	12.88	13.45	<0.001

Interpretation

Clinical anxiety decreased from 48.62 ± 7.18 at pre-test to 35.74 ± 6.21 at post-test, with a mean reduction of 12.88 points.

The paired t -test showed a statistically significant difference between the two

assessments ($t = 13.45$, $p < 0.001$), indicating that participation in the structured paediatric clinical orientation programme was associated with a significant reduction in clinical anxiety.

Table 5. Effectiveness of the Structured Paediatric Clinical Orientation Programme on Clinical Confidence (N = 60)

Variable	Pre-test Mean $\pm$ SD	Post-test Mean $\pm$ SD	Mean Difference	t	p -value
Clinical confidence	56.83 ± 8.12	75.26 ± 7.44	18.43	15.27	<0.001

Interpretation

The mean clinical confidence score increased from 56.83 ± 8.12 at pre-test to 75.26 ± 7.44

at post-test, representing a mean increase of 18.43 points.

The difference was statistically significant ($t = 15.27$, $p < 0.001$), indicating a significant improvement in clinical confidence following the structured paediatric clinical orientation programme.

Table 6. Association between Selected Socio-Demographic Variables and Baseline Clinical Anxiety (N = 60)

Variable	χ^2	df	p-value	Interpretation
Age	4.286	1	0.038	Significant
Gender	0.846	1	0.358	Not significant
Nursing programme	5.124	1	0.024	Significant
Previous paediatric clinical exposure	1.967	1	0.161	Not significant
Previous formal paediatric orientation	0.732	1	0.392	Not significant
Previous experience with paediatric procedures	1.548	1	0.213	Not significant
Previous paediatric nursing workshop/training	0.624	1	0.430	Not significant
Previous paediatric clinical observation	2.406	1	0.121	Not significant
Previous experience caring for a child	0.918	1	0.338	Not significant
Self-rated familiarity with paediatric nursing	4.672	2	0.097	Not significant

Interpretation

A statistically significant association was observed between age and baseline clinical anxiety ($\chi^2 = 4.286$, $p = 0.038$) and between nursing programme and baseline clinical anxiety ($\chi^2 = 5.124$, $p = 0.024$).

The remaining socio-demographic and clinical background variables were not significantly associated with baseline clinical anxiety ($p > 0.05$). These findings indicate that age and nursing programme were associated with differences in baseline clinical anxiety levels within the study sample.

DISCUSSION

The present study evaluated the effectiveness of a structured paediatric clinical orientation programme on clinical anxiety and confidence among student nurses entering their initial paediatric clinical posting. The findings demonstrated a significant reduction in clinical anxiety and a significant improvement in clinical confidence following the intervention.

The mean clinical anxiety score decreased from 48.62 ± 7.18 before the intervention to 35.74 ± 6.21 after the intervention, with a mean reduction of 12.88 points. The difference was statistically significant ($t = 13.45$, $p < 0.001$). This finding suggests that structured preparation may help students manage anxiety associated with their transition into paediatric clinical practice.

The reduction in anxiety may be explained by the structured nature of the intervention. Students were provided with information about the paediatric clinical environment, professional responsibilities, clinical procedures, infection prevention, communication, medication safety, and emergency preparedness before or during their transition into the clinical setting. Such

preparation can reduce uncertainty by allowing students to develop a clearer understanding of what they are likely to encounter during clinical practice.

This finding is conceptually consistent with previous research demonstrating that students may experience anxiety before and during their first clinical placement. Concerns about unfamiliar clinical environments, fear of making mistakes, inadequate preparation, communication difficulties, and uncertainty about expectations may contribute to students' anxiety during early clinical education.

The present study also demonstrated a significant increase in clinical confidence. The mean confidence score increased from 56.83 ± 8.12 at pre-test to 75.26 ± 7.44 at post-test, with a mean increase of 18.43 points ($t = 15.27$, $p < 0.001$).

The improvement in confidence may be related to opportunities for structured preparation, demonstrations, guided practice, clarification of clinical expectations, and exposure to paediatric clinical concepts before direct patient care. Confidence may develop when students have greater familiarity with their clinical responsibilities and know how and when to seek assistance.

The findings are consistent with literature suggesting that structured preclinical preparation can contribute to improved perceived competence, self-confidence, and readiness for clinical practice. Research in paediatric nursing education has similarly highlighted the potential value of structured educational preparation and empowerment-oriented interventions for improving students' clinical learning experiences.

The findings also have relevance to children's nursing education. Previous research involving

children's nursing students has emphasised the importance of induction, preparation, belonging, senior-student involvement, and supportive mentors during the first clinical placement. These factors may help students feel more psychologically prepared and supported when entering unfamiliar clinical environments.

The intervention used in the present study incorporated both clinical and psychological preparation. Rather than focusing exclusively on technical procedures, the programme addressed communication, professional responsibilities, help-seeking behaviour, patient safety, and emergency preparedness. Such an integrated approach may be particularly relevant in paediatric nursing because students must communicate with children at different developmental stages while also interacting with parents or caregivers.

The significant association observed between age and baseline clinical anxiety suggests that age-related differences may influence student's initial perceptions of clinical uncertainty. Similarly, the association between nursing programme and baseline anxiety indicates that students from different educational pathways may enter paediatric clinical practice with different levels of preparedness or expectations. However, these associations should be interpreted cautiously because the study was not primarily designed to examine predictors of baseline anxiety.

Overall, the findings suggest that structured orientation may be a feasible educational strategy for supporting students during the transition into paediatric clinical practice. Orientation programmes can be integrated into existing clinical preparation schedules and may be particularly useful for students with limited previous exposure to paediatric clinical settings. Nevertheless, the findings should be interpreted cautiously. The one-group pre-test–post-test design does not permit definitive attribution of the observed changes exclusively to the intervention. Clinical exposure, faculty supervision, maturation, repeated testing, and other contextual factors may also have contributed to changes in anxiety and confidence. The use of self-reported measures may additionally introduce response bias.

Clinical and Educational Implications Implications for Nursing Educators

Nursing educators should consider incorporating structured paediatric clinical orientation before students begin their first

paediatric posting. Orientation should address clinical procedures as well as communication, emotional preparedness, professional expectations, patient safety, and appropriate help-seeking behaviour.

Implications for Paediatric Clinical Instructors

Clinical instructors can use structured checklists, demonstrations, supervised practice, guided observation, and brief reflective discussions to help students gradually develop confidence and familiarity with paediatric clinical practice.

Implications for Nursing Institutions

Nursing institutions may consider establishing standardised preclinical orientation packages for paediatric postings. Such programmes can include ward familiarisation, simulation, paediatric assessment practice, medication safety, infection prevention, emergency preparedness, and child- and family-centred communication.

Implications for Students

Students should be encouraged to participate actively in orientation, identify areas of uncertainty, seek appropriate supervision, and use reflective learning to consolidate clinical experiences.

Implications for Paediatric Clinical Services

A supportive clinical environment involving faculty, clinical nurses, and mentors may facilitate student's sense of belonging and psychological safety during their first paediatric placement.

Strengths of the Study

1. The study addresses an important educational challenge occurring during the transition from theoretical preparation to paediatric clinical practice.
2. The intervention is potentially feasible for nursing institutions because it can be incorporated into existing clinical orientation processes.
3. The study examines two educationally relevant outcomes—clinical anxiety and clinical confidence—which are important components of students' psychological readiness for clinical learning.
4. The orientation programme addressed multiple dimensions of clinical preparation, including communication, patient safety, clinical procedures, emergency preparedness, and professional responsibilities.

Limitations

1. The pre-experimental one-group design limits causal inference.
2. The absence of a control group makes it difficult to determine whether the observed changes were attributable solely to the intervention.
3. The use of a non-probability sampling method may limit the generalisability of the findings.
4. Clinical anxiety and confidence were assessed using self-reported measures and may therefore be influenced by response and social-desirability bias.
5. The study was conducted in a specific institutional context, which may limit applicability to other nursing programmes and clinical settings.
6. The relatively short follow-up period does not establish whether improvements in confidence and reductions in anxiety are sustained over time.

Recommendations

Based on the findings, the following recommendations are proposed:

- Controlled experimental studies should be conducted using larger samples.
- Multicentre studies should be undertaken to improve generalisability.
- Randomised controlled trials should compare structured orientation with routine clinical preparation.
- Simulation-based paediatric orientation should be incorporated into future interventions.
- Longer follow-up periods should be used to determine whether improvements in confidence and reductions in anxiety are maintained throughout the clinical posting.
- Future studies should evaluate additional outcomes such as clinical competence, student satisfaction, communication skills, medication safety, and academic performance.
- Qualitative studies may be conducted to explore student's lived experiences of anxiety and confidence during paediatric clinical placement.
- Future research should examine the contribution of mentorship and clinical instructor support to student's psychological preparedness.

CONCLUSION

The transition to the paediatric clinical environment can be a challenging experience

for student nurses, particularly when it represents their first direct exposure to paediatric patient care. Structured preparation may reduce uncertainty and provide students with the knowledge and psychological readiness required for meaningful clinical participation.

In the present analysis, the structured paediatric clinical orientation programme was associated with a significant reduction in clinical anxiety and a significant improvement in clinical confidence. The mean anxiety score decreased by 12.88 points, while the mean confidence score increased by 18.43 points, with both changes reaching statistical significance ($p < 0.001$).

These findings support the potential value of integrating structured orientation into paediatric nursing education. An orientation programme combining clinical familiarisation, demonstrations, guided practice, communication preparation, patient-safety education, and emergency preparedness may help students approach their first paediatric clinical experience with greater psychological readiness.

However, because the study used a pre-experimental one-group design, the findings should be interpreted as evidence of an association between the intervention and observed changes rather than definitive proof of causality. Future controlled, randomised, and multicentre studies are required to establish the effectiveness and sustainability of structured paediatric clinical orientation programmes.

Declarations

Ethical Approval and Consent to Participate

Ethical approval was obtained from before commencement of the study. Administrative permission was obtained from the concerned institution. Written informed consent was obtained from all participants before data collection.

Consent for Publication

Not applicable.

Availability of Data and Materials

The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request, subject to institutional and ethical requirements.

Competing Interests

The authors declare that they have no competing interests.

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Author's Contributions

Nirupama Senapati: Conceptualization, methodology, data collection, data analysis, and manuscript preparation.

Priyanka Lal: Supervision, methodology, interpretation of findings, and critical revision of the manuscript.

Tripti Sahu: Literature review, manuscript review, and critical revision.

Neelam Sahu: Literature review, interpretation of findings, and manuscript review.

Sangeeta Ranabijuli: Data collection, literature review, and manuscript review.

All Authors: Reviewed and approved the final version of the manuscript and agreed to be accountable for all aspects of the work, ensuring that questions related to the accuracy or integrity of any part of the work were appropriately investigated and resolved.

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