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Assessing the training needs of pediatric healthcare professionals in communication, risk management, and psychosocial resilience

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ABSTRACT

Objective: The quality of pediatric healthcare is closely tied to the communicative and psychosocial capacities of healthcare professionals. This study aimed to quantitatively determine the training needs of staff working in a tertiary pediatric hospital focusing on communication, management of violence-related risks, and psychosocial resilience.

Materials and Methods: A cross-sectional descriptive design was employed using the Hennessy-Hicks Training Needs Analysis approach. Data were collected via an online questionnaire from 133 healthcare professionals. The training need for each specific skill was calculated using discrepancy scores, which represent the difference between the perceived importance of the skill for professional duties and the participant's self-assessed current competence.

Results: Positive discrepancy scores were observed across all 16 items, although the magnitude of these differences was modest in absolute terms. At the domain level, relatively higher training needs were identified in the management of violence-related risks (M=0.44) and the psychosocial resilience/organizational dimension (M=0.42). Communication skills presented a relatively lower but still positive need (M=0.24). The training topics ranked highest included recognizing and coping with burnout, achieving competency in "White Code" (a national emergency response protocol for workplace violence) procedures, and exhibiting safe behaviors during threats.

Conclusion: Training needs in pediatric hospital settings extend beyond individual knowledge gaps to represent structural requirements driven by professional roles and high-stress environments. In-service training policies should prioritize risk management and psychosocial resilience as core components, embedding communication skills as a foundational layer rather than an isolated module. Training designs must be sensitive to specific professional roles, unit intensities, and shift schedules.

Keywords: Communication, health personnel, inservice training, pediatric hospitals, psychological resilience, workplace violence

Introduction

The quality of healthcare extends beyond technical skills and physical infrastructure, heavily relying on the communicative competencies, emotional self-regulation, and psychosocial resilience of professionals. In clinical settings requiring intensive patient contact, limitations in these skills compromise both service quality and staff well-being. Therefore, cultivating a healthy work environment is a holistic process that requires reinforcing employees' individual competencies alongside structural arrangements.

This necessity emerges much more prominently in pediatric healthcare. The developmental vulnerabilities of pediatric patients and the acute anxiety of their parents transform care into an emotionally intense interaction. Combined with heavy workloads and time pressure, this continuous empathic demand creates an exhausting climate that rapidly depletes the emotional resources of healthcare professionals (1-6). Consequently, the stress, burnout, and psychosocial strain prevalent among staff are largely linked to high emotional labor and inadequate coping strategies. Creating sustainable work environments, therefore, requires moving beyond physical security measures to foster individual skills such as stress management, anger control, and situational awareness (7-9). The World Health Organization also highlights enhancing employees' psychosocial capacity as fundamental to safe work environments (10).

Despite this, foundational medical education predominantly focuses on biomedical knowledge, leaving communicative and psychosocial skills secondary. Entering complex clinical environments without adequate preparation in these areas predisposes professionals to emotional difficulties and

interpersonal tensions early in their careers. While in-service training aims to bridge this gap, standardized programs lacking context-sensitivity yield limited impact (11). Analyzing training needs at a micro-level (reflecting the specific dynamics of a single institution rather than broad macro-level assumptions) provides measurable improvements in service delivery (12). Accordingly, the Hennessy-Hicks Training Needs Analysis Model utilized in this study provides a robust foundation for developing contemporary, role-sensitive training strategies by objectively revealing the structural gap between healthcare professionals' occupational expectations and current competencies (13).

While health policy documents increasingly emphasize organizational climate and communication, translating this awareness into field practice requires measurable, context-sensitive data. Empowering psychosocial support professionals, such as social workers, to actively shape this environment necessitates accurately identifying the staff's actual training needs. This study aimed to quantitatively determine the training needs of healthcare professionals working in a tertiary pediatric hospital across three domains: (i) communication skills, (ii) management of violence-related risks, and (iii) psychosocial resilience and the organizational dimension. Training need was operationalized within a descriptive and comparative framework based on discrepancy scores, representing the gap between the perceived importance of a specific skill for professional duties and the participant's self-assessed current competence. The specific objectives were to identify the relative priority structure among these domains and to examine how training needs differ across contextual variables, including professional group, unit type, work schedule, seniority, and volume of daily patient interactions. By investigating the interrelationships among domains, this study sought to determine whether these needs were perceived as an integrated professional experience, thereby informing the development of targeted, role-sensitive in-service training modules.

Materials and Methods

This cross-sectional, descriptive field study aimed to reveal the individual training needs of healthcare professionals within their current work context. The scope, intensity, and patterns of self-perceived educational requirements were delineated without establishing causal relationships or intervening on variables. Instead, perceived needs in communication, violence-related risk management, and psychosocial resilience were evaluated contextually. Training need was conceptualized not as absolute deficiency, but as the relative discrepancy between the perceived importance of specific skill areas for professional duties and current self-perceived competence. This approach avoids reducing needs to individual deficits, making the gap between professional expectations and perceived capacity visible, and facilitating the identification of patterned training requirements across the work context.

The target population comprised approximately 1,900 healthcare professionals working in a well-established tertiary pediatric hospital in Turkey (Ankara Bilkent City Hospital, Children's Hospital). This pediatric setting, characterized by continuous patient-relative interactions, presents a work environment with prominent communicative and psychosocial burdens. The inclusion criteria for the study required participants to be actively employed full-time and to have direct, face-to-face contact with patients or their relatives. The target group included physicians, nurses, midwives, medical technicians, allied health professionals and support staff. Due to the intense and unpredictable shift schedules inherent in pediatric care, convenience sampling based on voluntary participation was utilized. Data from 133 employees who fully completed the questionnaire were analyzed. This heterogeneous sample, while limited in size, enabled comparative analyses across distinct professional groups, unit types, and work schedules.

Data were collected using a 16-item structured questionnaire developed by the researchers. The items were drafted based on clinical field experience and a review of relevant literature. To establish content validity, the drafted questionnaire was reviewed and refined by the research team, which consists of academicians with expertise in medical social work and pediatric care. The tool is grounded in the Hennessy-Hicks (15) Training Needs Analysis Model, whose importance-performance discrepancy approach was itself developed and psychometrically validated through thematic literature analysis, focus groups, and semi-structured interviews with health care professional. This model identifies educational requirements by calculating the discrepancy between the perceived importance of a professional task (A) and the individual's self-assessed current competence in that task (B).

The items were categorized into three distinct functional domains based on the specific psychosocial demands of pediatric care. The Communication Skills domain (5 items) focused on clinical interactions (encompassing empathic engagement, active listening, and the ability to explain medical processes clearly to anxious parents). The Management of Violence-Related Risks domain (6 items) addressed safety and legal security (including the recognition of early warning signs, de-escalation of tense encounters, and proficiency in "White Code" emergency procedures). Finally, the Psychosocial Resilience and Organizational Dimension (5 items) targeted the staff's coping mechanisms and institutional connectivity (specifically measuring needs related to managing workplace stress, recognizing burnout symptoms, and utilizing institutional support channels).

The internal consistency of the instrument (evaluated via Cronbach's α coefficient based on the importance ratings) was found to be 0.954 for the entire scale, indicating excellent reliability for the study context. Subscale reliability was likewise excellent to good (Management of Violence-Related Risks, α =0.930; Psychosocial Resilience and Organizational Dimension, α = 0.897; Communication Skills, α = 0.872). For each item, participants provided two independent ratings on a 5-point Likert scale (1 = very low, 5 =very high), where the resulting discrepancy score (A–B) served as the primary quantitative indicator of training priority.

Following the acquisition of ethical committee approval and necessary institutional permissions, the questionnaire was administered online via Google Forms between 23 and 27 February 2026. The survey link was distributed through

internal WhatsApp groups and direct messaging to enhance data saturation across professional groups. Voluntary participation, anonymity, and data confidentiality were explicitly emphasized, and participants could withdraw at any time. Only fully completed forms were included in the analysis.

Statistical analysis

Data analysis was performed using IBM Statistical Package for the Social Sciences (SPSS), version 27.0 (IBM Corp., Armonk, NY, USA). An AI-based tool (Gemini Pro) was utilized strictly for linguistic refinement and the technical formatting of raw survey data (e.g., restructuring text responses into numerical columns for SPSS entry) during data preprocessing. No statistical calculations, data manipulation, or analytical interpretations were automated. Training needs were evaluated using descriptive statistics (frequencies, means, standard deviations) for item- and domain-based discrepancy scores. The Friedman test, with Bonferroni correction, was used for cross-domain comparisons. Due to violations of the homogeneity of variances assumption, Welch's t-test was used for comparing two independent groups, and Welch's ANOVA (F_Welch) was employed for comparisons involving more than two groups. The Mann-Whitney U test was used to assess seniority differences within the physician subgroup. Statistical significance was set at $p<0.050$.

Results

A total of 133 healthcare professionals employed at a tertiary pediatric hospital participated in the study. The demographic profile indicated a predominantly female workforce (78.2%), with age clusters concentrated in the young adult (20–29 years, 34.6%) and middle-aged (40–49 years, 33.8%) groups. In terms of professional distribution, the sample was weighted towards frontline clinical staff; nurses, midwives, and medical technicians comprised 45.1%, while physicians accounted for 24.8%.

Table I: Demographic and professional characteristics of the participants

Characteristics	n (%)
Gender	
Female	104 (78.2)
Male	29 (21.8)
Age Groups	
20–29 years	46 (34.6)
30–39 years	27 (20.3)
40–49 years	45 (33.8)
≥ 50 years	15 (11.3)
Job Title	
Nurse / Midwife / Medical Technician	60 (45.1)
Physician	33 (24.8)
Medical Secretary / Clinical Support	21 (15.8)
Administrative / Technical Support	13 (9.8)
Allied Health Professional (Physiotherapist, Psychologist, Social Worker, etc.)	6 (4.5)
Unit	
Inpatient Unit	43 (32.3)
Outpatient Clinic	32 (24.1)
Intensive Care Unit (ICU)	18 (13.5)
Administrative Unit	9 (6.8)
Emergency Department	6 (4.5)
Operating Room	4 (3.0)
Imaging / Diagnostic	2 (1.5)
Other	19 (14.3)
History of Violence Exposure	
Yes	69 (51.9)
No	64 (48.1)

Table II: Assessment of training needs by domain and item

Training domains and items	mean±SD
Domain 1: Management of Violence-Related Risks	0.44 ± 0.63
Being familiar with the "White Code" procedure and relevant legal rights	0.54 ± 0.84
Exhibiting safe behaviors in situations involving assault or threat	0.48 ± 0.83
Applying de-escalation techniques	0.44 ± 0.87
Maintaining a calm and professional attitude in tense or conflicting situations	0.41 ± 0.69
Recognizing and managing one's own anger level	0.38 ± 0.70
Recognizing early warning signs of violence	0.37 ± 0.74
Domain 2: Psychosocial Resilience and Organizational Dimension	0.42 ± 0.62
Recognizing burnout symptoms and applying coping strategies	0.56 ± 0.95
Using institutional support mechanisms effectively	0.44 ± 0.79
Recognizing and managing stress sources in the work environment	0.43 ± 0.80
Developing organizational belonging and adopting corporate identity	0.39 ± 0.75
Using organizational communication channels and working with team spirit	0.26 ± 0.61
Domain 3: Communication Skills	0.24 ± 0.43
Communicating with difficult or angry patients and their relatives	0.32 ± 0.75
Using active listening and body language techniques	0.29 ± 0.60
Using empathic communication skills	0.23 ± 0.64
Strengthening intra-team communication and cooperation	0.21 ± 0.49
Explaining medical processes clearly and understandably to patients/relatives	0.16 ± 0.59

Values represent the difference scores (A-B) between perceived importance (A) and current competence (B). Positive values indicate a training need.

The distribution of work settings reflected the hospital's acute care focus, with the majority of participants working in inpatient clinics (32.3%) and outpatient units (24.1%). A notable characteristic of the sample was the high prevalence of violence exposure; 51.9% of the participants reported having been subjected to violence at some point in their careers. Detailed demographic and professional characteristics are presented in Table I.

The primary aim of the study was to identify the gap between perceived importance and current competence. The analysis revealed positive mean difference scores across all 16 items, indicating a universal training deficit where professional demands consistently exceeded the participants' self-assessed capacity.

When evaluated by domain, a clear hierarchy of needs emerged. Participants identified the Management of Violence-Related Risks (0.44±0.63) and Psychosocial Resilience and

Table III: Mean training need scores by domain and professional groups

Training Domain	Physician	Nursing & Care Staff*	Medical Secretary†	Allied Health Prof.	Admin. & Tech. Support	Welch's F (η^2)	p
Communication Skills	0.39	0.27	0.07	0.27	0.02	8.70 (0.09)	< 0.001
Violence-Related Risks	0.73	0.41	0.21	0.56	0.17	3.02 (0.09)	0.035
Psychosocial Resilience	0.74	0.42	0.10	0.43	0.09	6.23 (0.14)	0.001

Post-hoc pairwise comparisons (Games-Howell) indicated that the differentiation in Communication Skills was driven mainly by physicians scoring higher than medical secretaries (p=0.010) and administrative/technical support staff (=0.001), and by nursing & care staff scoring higher than administrative/technical support staff (p=0.001). For Violence-Related Risks, the only significant pairwise difference was physicians versus medical secretaries (p=0.021). For Psychosocial Resilience, physicians scored higher than medical secretaries (p=0.002) and administrative/technical support staff (p=0.001), and nursing & care staff scored higher than both of these groups (p=0.035–0.040).

Table IV: Comparison of training needs by unit type

Training Domain	Outpatient Clinic	Inpatient Unit	OR & ICU	Emergency & Diagnostic	Admin. & Support	Welch's F (η^2)	p
Communication Skills	0.37 ± 0.51	0.29 ± 0.35	0.17 ± 0.46	0.20 ± 0.32	-0.02 ± 0.34	3.44 (0.10)	0.016
Violence-Related Risks	0.60 ± 0.71	0.56 ± 0.64	0.28 ± 0.50	0.08 ± 0.49	0.23 ± 0.54	3.20 (0.10)	0.021
Psychosocial Resilience	0.63 ± 0.80	0.45 ± 0.57	0.39 ± 0.53	0.05 ± 0.37	0.14 ± 0.33	4.56 (0.10)	0.003

Post-hoc pairwise comparisons (Games-Howell) indicated that, for Communication Skills, the difference was driven by the Administrative & Support group scoring lower than the Inpatient Unit (p=0.019) and the Outpatient Clinic (p=0.013). For Violence-Related Risks, although the omnibus test was significant, no individual pairwise comparison reached significance, which can occur with unequal group sizes and variances. For Psychosocial Resilience, the Outpatient Clinic scored higher than both the Administrative & Support group (p=0.021) and the Emergency & Diagnostic group (p=0.016).

Table V: Comparison of training needs by history of violence exposure

Training Domain	Mean (Yes)	Mean (No)	Welch t (df)	p	Cohen's d
Communication Skills	0.32	0.16	2.22 (130.94)	0.028	0.39
Violence-Related Risks	0.57	0.30	2.45 (129.10)	0.015	0.42
Psychosocial Resilience	0.57	0.25	3.05 (122.02)	0.003	0.52

Welch's t-test was used for between-group comparisons; degrees of freedom (df) are provided in parentheses. Effect sizes are reported using Cohen's d coefficient. The sizes of the groups with and without a history of violence exposure are presented in the Participant Profile section.

Organizational Dimension (0.42±0.62) as the domains with relatively higher, though modest in absolute magnitude, discrepancy scores. In contrast, the need for technical Communication Skills, while present, was comparatively lower (0.24±0.43) than the other two domains (Table II).

Item-level analysis provided deeper insights into these priorities. The highest training needs were not related to routine tasks but to crisis management and emotional survival. Specifically, "recognizing burnout symptoms and applying coping strategies" (0.56±0.95) and "knowledge of White Code procedures and legal rights" (0.54±0.84) were the top-ranked items. This underscores that the staff's primary concerns are centered on legal security and psychological well-being.

To statistically verify the hierarchy of needs observed in descriptive statistics, a Friedman test was conducted. The results confirmed a significant difference in how participants prioritized the training domains (χ^2 =18.81, p<0.001). Post-hoc comparisons revealed that Psychosocial Resilience (Mean Rank: 2.43) and Management of Violence-Related Risks (Mean Rank: 2.00) were prioritized significantly higher than Communication Skills (Mean Rank: 1.57). This finding suggests that for pediatric healthcare workers, safety and resilience are prerequisite needs that supersede standard communication training.

The analysis of training needs by professional roles revealed a significant stratification. Physicians reported the highest training needs across all three domains, distinguishing them clearly from other groups (Table III). The disparity was most pronounced in the Psychosocial Resilience domain (F =6.23, p=0.001), where physicians reported a mean need score of 0.74, compared to 0.10 for medical secretaries. Notably, Allied Health Professionals also reported high needs in violence-related risks (0.56), diverging significantly from administrative staff. The effect sizes (partial η^2) for these group differences ranged from 0.09 to 0.14, indicating a moderate to large practical significance in how various professional roles experience training deficits.

Work setting also played a determining role. Participants working in direct patient care units (outpatient clinics and inpatient units) reported significantly higher needs in Risk Management (p=0.021) and Communication (p=0.016) compared to administrative staff. Interestingly, staff in high-intensity units such as the Intensive Care Unit (ICU) and Operating Room reported moderate to high needs in psychosocial resilience, reflecting the stressful nature of these environments (Table IV). The partial η^2 values of 0.10 across all three domains denote a moderate effect size, confirming that the physical and clinical environment of the unit substantially influences the perceived need for psychosocial training.

A critical determinant of training needs was the history of exposure to workplace violence. Participants who had previously experienced violence from patients or their relatives reported significantly higher training deficits across all three domains compared to those with no such history. This difference was most striking in the Psychosocial Resilience and Organizational Dimension (t=3.05, p=0.003), where the effect size was moderate-to-large (Cohen's d= 0.52). Significant differences were also observed in the Management of Violence-Related

Table VI: Comparison of specific psychosocial training items by job title

Training domain	Physician	Nursing & Care Staff	Medical Secretary	Allied Health Prof.	Admin. & Tech. Support	Kruskal-Wallis H (η^2)	p
Coping with Burnout	0.88±1.14	0.62±0.90	0.24±0.89	0.50±0.55	0.08±0.49	11.70 (0.09)	0.020
Anger Management	0.67±0.89	0.33±0.54	0.24±0.89	0.50±0.55	0.08±0.28	11.98 (0.09)	0.018
Stress Management	0.70±0.92	0.45±0.77	0.24±0.89	0.17±0.41	0.08±0.28	12.49 (0.09)	0.014

Values in this table represent mean ± SD difference scores (A-B), consistent with the other tables; the previously reported values reflected Kruskal-Wallis mean ranks rather than raw discrepancy scores and have been corrected accordingly. Dunn's post-hoc test with Bonferroni correction indicated that, for Anger Management, physicians scored significantly higher than medical secretaries (p=0.047); for Stress Management, physicians likewise scored higher than medical secretaries (p=0.040). For Coping with Burnout, no pairwise comparison remained significant after Bonferroni correction, despite the significant omnibus test.

Risks (t=2.45, p=0.015, d=0.42) and Communication Skills (t=2.22, p=0.028, d= 0.39) (Table V). These findings indicate that the experience of violence exacerbates the training need within a holistic framework encompassing communication and psychosocial processes, extending far beyond mere security and risk management.

Further analysis of specific psychosocial items showed that training needs regarding recognizing and coping with burnout, managing anger, and managing stress differed significantly among professional groups (Kruskal-Wallis H test; p=0.014-0.020). As presented in Table VI, these needs were particularly pronounced among physicians and allied health professionals, while they were expressed at relatively lower levels by medical secretaries and administrative/technical support staff. The effect sizes for these specific item differences (partial η^2 = 0.09) indicate a moderate practical significance. These findings suggest that the educational requirement regarding psychosocial coping domains is dictated by the professional role and the emotional burden of clinical responsibility, rather than merely the quantitative workload.

In summary, the findings demonstrate that pediatric healthcare professionals experience significant training deficits, particularly in managing violence-related risks and maintaining psychosocial resilience. These identified needs are not uniform; they are instead intricately tied to high-stress work settings, prior exposure to workplace violence, and the specific emotional and clinical burdens inherent to different professional roles. The intersection of these factors highlights a complex landscape of educational requirements that extends significantly beyond basic communication or routine clinical skills.

Discussion

The findings consistently highlight training needs across three axes: communicative competencies, management of violence-related risks, and psychosocial resilience. The predominantly positive discrepancy scores across all domains indicate an expectation-capacity gap. Participants perceive these competencies as crucial, yet their self-assessed proficiency lags behind. Validating the fundamental premise of the Hennessy-Hicks approach, this pattern demonstrates that educational requirements should be conceptualized through the gap between perceived importance and current performance rather than absolute deficiency (14,15). Thus, the chosen measurement logic directly articulates the professional demands generated by the pediatric hospital climate.

Domain-based averages reveal that training needs are intensely concentrated in managing violence-related risks and psychosocial resilience, while communication skills present a lower, yet positive, need. This implies two dynamics. First, communication is likely experienced as a routinized repertoire within daily practice, whereas risk management and resilience are fragile domains interwoven with workplace uncertainties. Second, the continuous nature of communication in pediatric settings may normalize the need, reducing its visibility. Conversely, threshold experiences like risk and burnout signal educational requirements much more sharply. The high discrepancy scores for items such as recognizing burnout, achieving competence in White Code procedures, and exhibiting safe behaviors suggest that employees construct their training needs as a necessity for security and sustainability. Recent meta-analyses confirm that workplace violence prevention training programs significantly increase healthcare professionals' confidence and their capacity to act during incidents (16). This aligns with frameworks emphasizing that healthcare environments must be comprehended through employee safety and psychosocial well-being rather than solely communication quality (7,17,18).

The significant differentiation in priority structure, confirmed by the Friedman test, indicates that training needs are organized hierarchically. In environments with high emotional burden, skills addressing critical incidents naturally elevate the educational demand over communication. However, this lower priority does not imply communication is unnecessary; rather, it is accepted as an embedded, obligatory clinical practice. Marginalizing communication content in educational planning would be risky, as it serves as a foundational layer for early risk recognition, de-escalation, and utilizing institutional support (19, 20).

Significant stratification at the professional group level demonstrates that needs are constructed relative to role expectations and responsibility burdens. Physicians reported the highest needs across all domains, a finding that can be attributed to several structural dynamics inherent in the medical hierarchy. As primary clinical decision-makers, physicians bear the ultimate legal and medical accountability for patient outcomes, which structurally positions them as direct targets of parental anxiety and frustration. Furthermore, during incidents of workplace violence, they are implicitly expected to assume a leadership role in de-escalating conflicts, a responsibility that frequently transcends their clinical expertise. However, traditional biomedical education structurally underprepares them for these complex organizational and psychosocial demands. Recent systematic reviews confirm that the high cognitive load

and chronic emotional exhaustion inherent in modern medical practice significantly deplete physicians' psychosocial reserves and career engagement (21). This structural vulnerability necessitates a role-sensitive training design rather than a uniform format. Similarly, contextual variables like patient circulation and care intensity shape needs across unit types. The high communication and risk management needs in outpatient and inpatient clinics correspond to the continuous, tension-generating nature of face-to-face interactions. Meanwhile, the prominent need for psychosocial resilience in operating rooms and intensive care units reflects the wearing effect of high-risk decisions, uninterrupted attention, and exposure to severe illness.

The variation in communication needs according to work schedules highlights that training efficacy depends on delivery rhythm as much as content. Elevated needs among employees on mixed schedules may be associated with irregular time organization complicating intra-team coordination and rapidly depleting emotional regulation resources. Because educational demand fluctuates with context, methods like shift-compatible short modules and micro-learning gain importance. Organizational training literature has long emphasized the necessity of aligning training design with the work context (11). Furthermore, recent pedagogical reviews in healthcare strongly support this alignment, demonstrating that continuous digital micro-learning interventions effectively bypass the time constraints of rotating shifts (22).

Conversely, the absence of significant differentiation across quantitative variables like seniority and daily direct interactions demonstrates that needs cannot be explained by the reductionist assumption that "less experience equals more need." Experience may strengthen skills, but it simultaneously increases cumulative burdens like chronic stress and emotion regulation difficulties. Thus, seniority alone is not distinguishing; training needs are more tightly coupled with specific roles and environments. Similarly, the quality of contact is often more decisive than quantity. A high volume of routine contacts versus fewer highly tense contacts shapes the perception of need differently, indicating that crude targeting strategies based solely on interaction volume will be insufficient.

Within the physician subgroup, the significance of the resident-senior distinction in psychosocial resilience reflects how institutional positioning impacts perceived needs. Residents operate under heavy workloads, ambiguous boundaries, and limited autonomy. Contemporary literature confirms that this lack of structural autonomy leaves medical residents highly vulnerable to systemic burnout and moral injury, elevating their need for targeted organizational support (23). Consequently, topics like utilizing support mechanisms and coping with burnout generate higher discrepancy scores. This underscores that training must not be confined to increasing individual resilience; organizational components (such as in-house counseling, supervision, and accessible support lines) must also be fortified to target holistic environmental conditions (7).

The strong correlations among the three domains suggest that training needs are perceived as an integrated professional experience rather than fragmented skills. A curriculum advancing through interconnected skill sets and shared scenarios would be highly functional. For instance, de-escalation techniques resonate more realistically when combined with early warning recognition, self-regulation, and institutional procedures. Likewise, White Code training should link pre-incident risk awareness, safe behavior during the incident, and post-incident psychosocial reporting processes.

Limitations

While these findings offer a context-sensitive roadmap for reconstructing training design in high-stress pediatric environments, certain limitations must be acknowledged. First, the cross-sectional design and the relatively small sample size from a single tertiary hospital limit the generalizability of the findings to all pediatric settings. Relying on self-reported data evaluates training needs through participants' perceptions, precluding validation with objective performance indicators. Therefore, future research should incorporate objective metrics (such as actual incident reporting rates, absenteeism data, or simulated performance evaluations) to validate these self-reported training needs. Furthermore, while content validity was established via expert consensus and internal consistency was excellent, the absence of construct validity testing (e.g., factor analysis) due to sample size constraints constitutes a methodological limitation. Despite these constraints, the study provides a critical baseline for developing psychosocially-oriented training policies in pediatric care.

Conclusion

This study offers an original contribution to the literature by evaluating the training requirements of pediatric healthcare professionals not through assumed knowledge gaps, but through the structural expectation-capacity imbalance shaped by their high-stress work context. By revealing that employees perceive their greatest educational needs in areas critical to their psychological survival and physical safety, rather than in routine clinical or standard communication skills, this research highlights a critical blind spot in traditional biomedical education. This finding underscores the necessity of repositioning in-service training from a mandatory administrative routine to a strategic, psychosocially informed tool designed to meticulously manage the equilibrium between professional demands and workforce capacity.

Consequently, an effective institutional training policy must transcend a narrow framework centered solely on communication. Instead, violence-related risk management and psychosocial resilience must constitute the core curriculum. Communication skills should be systematically embedded within this curriculum as a foundational integrative framework for risk awareness, tension de-escalation, and team coordination, rather than being taught as an isolated theme. Comprehensive training curricula in pediatric settings that integrate both communication and safety protocols across all staff roles have been shown to directly improve patient care experiences (24). In practice, this entails restructuring in-service training into brief, shift-compatible modules embedded in institutional support structures (e.g., peer-supervision circles led by psychosocial

professionals), with programme impact monitored through objective indicators such as incident reports and burnout metrics.

Ethics committee approval

This study was conducted in accordance with the Helsinki Declaration Principles. The study was approved by Ankara Bilkent City Hospital (18/02/2026, reference number: TABED 2-26 - 1956).

Contribution of the authors

Study conception and design: HCİ, TT, CK; data collection: HCİ, CK; analysis and interpretation of results: HCİ; draft manuscript preparation: HCİ; critical revision of the manuscript: TT. All authors reviewed the results and approved the final version of the article.

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The authors declare that there is no conflict of interest.

Generative AI Statetment

During data preprocessing, an AI-based tool (Gemini Pro) was used strictly for linguistic refinement and for the technical formatting of raw survey text responses into numerical columns for SPSS entry. No statistical calculations, data manipulation, or analytical interpretations were performed by the tool. All authors have reviewed and take full responsibility for the content of this manuscript.

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