

Bullying in Orphanages: Psychological Consequences for Institutionalized Children in Pakistan

Arooj¹, Namra Shahzadi², Misbah Arshad³

¹ M.Phil, Department of Psychology, University of Gujrat, Email: arooj3476@gmail.com

^{2,3} Ph.D., Department of Psychology, University of Gujrat,

Email: namra.shahzadi@uog.edu.pk, misbah.arshad@uog.edu.pk

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Abstract

Bullying in Pakistani orphanages is an underexplored issue with serious allegations for the physical and psychological well-being of institutionalized children. This study inspected the impact of bullying and institutionalization on the physical health of orphanage children in Pakistan, where inadequate supervision and resource restrictions increase vulnerability. A cross-sectional correlational design was employed with a purposive sample of 600 adolescents 341=boys and 259= girls, aged range between 10 to 19 years were recruited from different orphanages in Gujrat, Gujranwala and Lahore. Data were collected using the Illusion Bullying Scale Urdu version and results showing that boys were significantly more involved in fights as $M = 11.07$, $SD = 4.92$ and victimization $M = 10.09$, $SD = 4.49$ compared to girls $M = 9.58$, $SD = 4.13$ and $M = 8.10$, $SD = 3.56$. Age differences also specified that children aged 8–12 reported higher bullying scores as $M = 38.98$ and $SD = 12.81$ than older peers $M = 35.45$ and $SD = 12.25$. Weight of the children were also emerged as a significant factor $F = 11.33$ with underweight children 20–39 kg experiencing the highest bullying levels $M = 39.35$ and $SD = 12.98$. However, length of institutional stay did not significantly predict bullying behaviors among children. Findings also highlighted the urgent need for gender-sensitive psychological interventions, nutritional care for underweight children and caregiver training programs in trauma-informed practices. Addressing bullying behaviors in orphanages is critical to improving child protection and well-being in Pakistan's institutional care system.

Keywords: Bullying, Orphanages, Psychological Health, Institutionalization, Pakistan

Introduction

Bullying in childhood is a critical global health issue highlighted by organizations like the WHO, UNICEF, and CDC, evidencing its severe impacts on children's physical and psychological health (WHO, 2023; Irwin et al., 2021). Its prevalence transcends geography, culture, and socioeconomic status, with about 30% of children experiencing bullying during their education (UNESCO, 2023). This exposes millions to long-lasting effects on academic performance, health, and emotional well-being (Craig et al., 2023; Sainz & Martín-Moya, 2023). In Pakistan, bullying has been primarily studied within school settings, with insufficient research in institutional care environments such as orphanages. A Lahore study revealed that 44% of school-going children faced bullying, which may underrepresent the situation in orphanages that may lack adequate supervision and emotional support (Tariq et al., 2018). Children in these settings are particularly susceptible due to the lack of familial protection and the presence of overcrowded conditions that foster power dynamics and peer dominance (Scannapieco & Connell-Carrick, 2021). Such environments pose risks to

children's psychological and physical health, as ongoing stress and limited medical care can lead to chronic health issues (Biehal et al., 2019). Bullying is defined as aggressive behavior involving repetition, intentionality, and a power imbalance between aggressor and victim (Olweus, 1993). This imbalance can be physical, social, or psychological and is often reinforced by peers and neglectful institutions (Volk et al., 2017). Behaviors typical of bullying include verbal aggression, physical violence, relational exclusion, and cyberbullying, the latter amplified by digital platforms (Smith et al., 2023; Espelage & Hong, 2022). Understanding bullying requires recognizing it as a social phenomenon involving numerous roles beyond just bullies and victims, including followers and bystanders (Olweus, 2001). These roles are influenced by the institution's climate, adult intervention, and society's views on aggression, which are particularly pertinent in resource-strapped orphanages. The consequences of bullying affect both mental and physical health. Chronic victimization has been linked to various physical ailments, such as gastrointestinal issues and headaches, as well as psychiatric disorders including depression and anxiety (Modecki et al., 2022; Copeland et al., 2021). Perpetrators similarly face long-term repercussions, further emphasizing the cyclical nature of aggression (Kowalski & Limber, 2021). Orphanage settings face structural challenges that nurture bullying, including limited resources, high caregiver ratios, and inadequate staff training (Biehal et al., 2020). Children often create their own social hierarchies, leading to dominance dynamics that can manifest in bullying as a survival tactic for resources and attention (Scannapieco & Connell-Carrick, 2021). These structural issues also correlate with poor health outcomes, exposing orphans to malnutrition and unsanitary conditions, exacerbated by the absence of emotional support necessary for processing experiences and trauma (Aamir et al., 2024; WHO, 2020; Gulliver et al., 2022). The duration of institutionalization for children significantly impacts their physical and neurological development, with longer stays correlating with considerable delays in cognitive functioning, social engagement, and physical growth, as shown in longitudinal research, particularly from the Bucharest Early Intervention Project (Nelson et al., 2014). Neuroimaging studies illustrate that prolonged exposure to deprivation alters brain architecture, especially in areas linked to emotion regulation and executive functions (Bick et al., 2017; Ludyga et al., 2024). Extended institutionalization may cause children to miss critical developmental opportunities in language, motor, and social skills, ultimately affecting their educational achievements and social integration (Van IJzendoorn et al., 2020). This duration also enhances the risk of health complications, leading to chronic illnesses, developmental delays, and infections (Zeanah et al., 2009). Bullying in orphanages is a vital yet overlooked issue in child protection. These institutions, intended to offer safety, often cultivate power hierarchies and cultures of impunity due to inadequate supervision and untrained staff, resulting in normalized bullying behaviors. While anti-bullying initiatives in educational settings exist, similar measures in orphanages—particularly in South Asia—are frequently absent or poorly enforced (UNICEF, 2023). In Pakistan, challenges like underfunded welfare systems, stigmatization of orphaned youth, and a lack of child advocacy frameworks further exacerbate the problem (Mahar, 2021). Caregivers are often overwhelmed, resulting in insufficient psychological support and conflict resolution strategies, leading children to adopt harmful social survival tactics, including bullying (Zafar & Khan, 2023). The psychological vulnerabilities of orphaned children who have faced trauma are intensified when bullying is prevalent. Victims may experience higher rates of suicidal ideation and emotional dysregulation compared to peers in foster care (Gulliver et al., 2022; Biehal et al., 2020). Furthermore, cyberbullying is increasingly prominent in these settings, as access to smartphones allows online aggression to flourish without adult oversight. This digital bullying is often more damaging than traditional bullying due to its pervasive and isolating nature (Livingstone et al., 2022). Children in orphanages lack both the knowledge and support systems necessary for addressing cyberbullying, exacerbating feelings of fear and helplessness (Ayub & Malik, 2020). Gender dynamics shape the bullying landscape in orphanages, where boys typically

engage in physical bullying and girls in relationally aggressive behaviors (Bjärehed et al., 2020). However, these trends can shift in institutional settings due to cultural and peer influences. In patriarchal societies, traditional gender roles can perpetuate cycles of aggression, and those who do not conform to societal norms—such as gender-nonconforming individuals—are at heightened risk for victimization (Ahmed & Latif, 2023; D’Cruz & Noronha, 2021). Stigmatization further compounds these issues, as children with perceived differences, whether from health issues or socio-cultural backgrounds, frequently become targets of bullying (Padilla-Walker et al., 2023). The consequences of bullying in institutional settings extend into education, with victimized children tending to avoid school and show diminished motivation, leading to poor academic outcomes (Niazi et al., 2022). Coupled with poor institutional living conditions—like inadequate nutrition and lack of personal care—this results in substantial cognitive and physical detriment (Craig et al., 2023; Windsor et al., 2007). Bullying exacerbates these challenges by impeding children's ability to partake in physical activity and peer bonding, further contributing to their decline in health and academic performance. Moreover, bullied children may hesitate to seek healthcare due to fears of retaliation or humiliation. This issue is compounded in institutions with insufficient medical staff trained in trauma-informed care, leading to overlooked symptoms that might be misclassified as behavioral (WHO, 2020). To effectively address bullying in orphanages, a multifaceted approach is essential, integrating psychological and healthcare support, policy enhancements, and community awareness. Successful models, such as the KiVa initiative in Finland, emphasize comprehensive anti-bullying strategies (Salmivalli et al., 2021). In Pakistan, developing tailored institutional policies—including caregiver training, youth empowerment programs, and conflict resolution education—becomes crucial. Interventions must be culturally sensitive and aligned with local societal norms that often condone bullying. Additionally, children's welfare frameworks should include adherence to anti-bullying rules as a prerequisite for orphanage licensing and funding (Kljakovic & Hunt, 2022).

Literature Review

Bullying is identified globally as a form of interpersonal aggression characterized by intentionality, repetition, and a power imbalance between aggressor and victim (Olweus, 1993; 2001). Research has divided bullying into direct, including physical and verbal attacks, and indirect forms, such as social exclusion and rumor-spreading, with distinct psychosocial impacts (Gladden et al., 2014; Smith et al., 2023). Indirect bullying, particularly concerning social damage and involving third parties, has increased attention (Thomas et al., 2017; Björkqvist & Österman, 2012). Cyberbullying, a modern variant of indirect aggression, is exacerbated by widespread digital access, allowing for continuous harm beyond traditional confines (Smith et al., 2023). Victims face higher risks of depression, anxiety, and suicidal thoughts compared to peers (Pacer, 2022; Modecki et al., 2022). In Pakistan, the digitalization during the COVID-19 pandemic heightened children's exposure to online bullying, especially in under-supervised educational institutions (Ayub & Malik, 2020). Various psychological theories explain bullying dynamics. Bandura's Social Learning Theory (1986) suggests aggression is learned through observation, particularly in orphanages where children may mimic aggressive peers or caregivers (Venkatesh & Kumar, 2021). The Social Cognitive Theory emphasizes interaction between personal, behavioral, and environmental factors (Bandura, 1986; Orpinas & Horne, 2006). The Theory of Mind reveals that some bullies can manipulate others by anticipating emotional responses. Cognitive distortions, such as blame-shifting, are also linked to persistent bullying behaviors (Peters et al., 2023). Bronfenbrenner's Ecological Systems Theory (1979) contextualizes bullying within a system influenced by relationships and policies. Children in institutional settings, like orphanages, are particularly vulnerable to bullying due to high caregiver turnover, limited oversight, and overcrowding. Research indicates prevalent yet underreported bullying among orphans in

Pakistan. Peer exclusion predicts poor mental health outcomes (Khizar et al., 2024). More than 30% of institutionalized adolescents exhibit behavioral issues tied to bullying (Khurshied, 2016). Internationally, prevalence rates are diverse, with bullying victimization in SAARC countries ranging from 4.1% to 95% (Srinivasan et al., 2022), and in China, 40.62% of left-behind children face bullying (Yan et al., 2024). The association between bullying and physical health is increasingly clear. Victims report somatic complaints like headaches and fatigue, worsened by chronic stress (Craig et al., 2023; Copeland et al., 2021). In Pakistan, orphaned children exhibit high rates of nutritional deficiencies and health issues (Riaz et al., 2021; Aziz et al., 2023). The WHO's holistic definition of health highlights how bullying impacts overall wellness, influencing factors like hormonal regulation and immune response (Huang et al., 2022). The duration of institutional care critically influences health and development outcomes in children. Research by Nelson et al. (2014) indicates that extended institutionalization can detrimentally affect brain development in areas associated with emotional regulation and cognition, thereby increasing susceptibility to bullying. Children facing prolonged care from infancy are particularly prone to various long-term health issues such as stunted growth, weakened immune responses, and emotional dysregulation (Van IJzendoorn et al., 2020). A lack of stable caregiver-child relationships exacerbates these vulnerabilities, leading to insecure attachment patterns (Zeanah et al., 2019). Such attachment disruptions often lead to altered cortisol regulation and heightened inflammatory markers, representing biological stress indicators (Behen et al., 2020; Hostinar & Gunnar, 2020). Global anti-bullying initiatives like the KiVa program in Finland and the Olweus Bullying Prevention Program are effective in schools but seldom adapted for orphanage settings (Salmivalli et al., 2021). In low-income nations, inadequate institutional policies and lack of caregiver training are major obstacles. Interventions that fail to consider cultural contexts often struggle to succeed (Kljakovic & Hunt, 2022). The Nurturing Care Framework from UNICEF highlights the importance of responsive caregiving, proper nutrition, and early learning—elements typically absent in institutional care (Black et al., 2021). Research indicates that integrated interventions combining health services, caregiver education, and emotional support can alleviate the negative impacts of both bullying and prolonged institutionalization (Coppola et al., 2020; Saxena et al., 2019). While children in orphanages face numerous challenges, many exhibit resilience and adaptability. Resilience encompasses the ability to maintain mental health despite adversities (Masten, 2014). Protective factors like peer relationships, access to education, emotional support from caregivers, and spiritual involvement can help mitigate bullying effects (Liebenberg et al., 2016). A South African study by Theron and Theron (2019) revealed that orphaned children with strong social networks and mentorship displayed improved psychological outcomes and fewer instances of bullying. Caregiver influence is essential in shaping the social atmosphere of orphanages. Studies indicate that caregivers who show warmth, responsiveness, and consistent discipline can help reduce aggression and bullying (Scannapieco & Connell-Carrick, 2021). However, high caregiver-to-child ratios, inadequate training, and low compensation lead to caregiver fatigue and, consequently, neglect or punitive actions. Such environments often foster an unsafe climate for children where bullying can thrive (Dozier et al., 2012; Barth et al., 2020). Additionally, staff in Pakistani orphanages are frequently untrained in child development or trauma-informed care (Mahar, 2021). Training in emotional literacy and de-escalation techniques has been shown to significantly reduce bullying incidents (UNICEF, 2023). Favoritism among caregivers and inconsistent discipline practices can further exacerbate peer victimization (Berger et al., 2022). Gender norms heavily impact the expression and experience of bullying within institutional contexts. Boys typically engage in overt aggression, while girls often resort to relational aggression, such as exclusion and emotional manipulation (Salmivalli et al., 2021; Craig et al., 2023). In patriarchal societies like Pakistan, male children may be socialized to assert dominance, normalizing physical bullying (Khurshied, 2016). Girls may encounter body-shaming

and emotional bullying, particularly in overcrowded conditions (Bano & Zia, 2021). Sexual and gender minority (SGM) children in orphanages are at a heightened risk of violence and emotional bullying, often concealing their identities due to fear of victimization, resulting in long-term distress (D'Cruz & Noronha, 2021). Very few orphanages in Pakistan have inclusive policies to support these individuals. Cultural attitudes towards discipline and social order also shape the prevalence of bullying in institutional care. In many regions, corporal punishment is still deemed acceptable, which normalizes violence (Kakar, 2020). Societal stigma against orphans can lead to internalized shame among bullying victims, who may be hesitant to report abuse due to fears of being dismissed or retaliated against (Mahar, 2021). This silence perpetuates cycles of violence and emotional suppression.

Hypothesis of the study

Following are the hypothesis of the study

H1: There is likely correlational relationship between bullying and physical health in children of orphanage.

H2: There is likely relationship between bullying and the length of institutionalization in the children of orphanage.

H3: Bullying and length of institutionalization will predict the physical health.

Methods

This study utilized a cross-sectional correlational research design to investigate the relationship between bullying, physical health, and length of institutionalization among orphanage children in Pakistan.

Participant and Procedure

The sample of 600 adolescents (341 males and 259 females), aged 10 to 19, was selected from orphanages in Gujrat, Gujranwala, and Lahore through non-probability purposive sampling. Participants were categorized into early (10–12 years), middle (13–15 years), and late adolescence (16–19 years) stages aligned with WHO classifications. G*Power analysis established the required sample size. Inclusion criteria comprised children aged 10–19 who had been residents of orphanages for at least one month and were capable of comprehension and participation in assessments. Exclusion criteria ruled out those under 10 or over 19, individuals with disabilities impeding participation, non-institutionalized children, and those lacking consent. Data collection involved a demographic questionnaire to gather age, gender, education, stay duration, weight, and health status, and the Urdu version of the Illusion Bullying Scale (18 items across three subscales) was employed. Ethical approval was secured, ensuring participant confidentiality and informed consent. Data analysis used IBM SPSS (Version 24), applying descriptive statistics, t-tests, ANOVA, chi-square tests, and neural network analysis, while reliability was confirmed using Cronbach's alpha. Predictive relationships among variables were assessed through regression and neural network modeling.

Results

Table 1: Mean Comparison of Orphanage Children (Gender Group) on Bullying, Bully, Fight and Victim

Variables	Male		Female		t	p	Cohen's d
	M	SD	M	SD			
Bullying	38.80	13.159	34.19	11.281	4.515	.066	12.383
Bully	17.64	6.281	16.51	6.285	2.187	.705	6.282
Fight	11.07	4.929	9.58	4.130	3.924	.016	4.601
Victim	10.09	4.497	8.10	3.561	5.854	.000	4.119

Table 1 indicates the t- Test independent sample test of mean comparison of gender group on bullying bully fight and victim. The result shows that there were no significant gender differences in bullying behavior or in the tendency to bully other. Though, males are more likely to be involved in fight and to be victims of bullying then females. Males are scored significantly higher on both variable Fight and Victim.

Table 2: Mean Comparison of Orphanage Children (Age Group) on Bullying, Bully, Fight and Victim

Variables	8-12years		13-16years		t	p	Cohen's d
	M	SD	M	SD			
Bullying	38.98	12.813	35.45	12.258	3.378	.683	3.38
Bully	18.29	6.748	16.44	5.905	3.542	.025	3.54
Fight	11.06	4.665	10.03	4.613	2.641	.710	2.64
Victim	9.63	4.157	8.98	4.265	1.845	.543	1.86

The Table 1.2 show that the t- test independent sample test of mean of age group on bullying bully fight and victim. The result indicates that age has significantly play a role in bullying behavior, children aged from 8-12 are significantly more likely to engage in bullying behavior compared to 13-16. The age range from 8-12 scored significantly high on both victim and bullying variable.

Table 3: One-Way Analysis of Variance in Bullying, Bully, Fight and Victim across Stay Period Groups

Variables	1Day-3Years		3Y-1D-7Years		7Y-1D-10Years and above		F	P
	n = 330		n = 195		n = 75			
	M	SD	M	SD	M	SD		
Bullying	36.42	12.446	37.84	12.958	35.83	12.170	1.041	.354
Bully	16.81	6.068	17.81	6.571	16.95	6.553	1.586	.206
Fight	10.41	4.605	10.56	4.757	10.12	4.661	.249	.780
Victim	9.20	4.290	9.47	4.303	8.76	3.770	.777	.460

*** $p < .001$.

As shown in the above table 3, there was no significant difference on Stay period among Bullying, Bully, and fight. The stay period ($F = 1.041$; $p < .05$) and at bully ($F = 1.586$, $p < .05$) and for victim ($F = .777$, $p < .05$) and for fight ($F = .249$, $p < .05$). This suggests that the duration of stay period does not have a significant impact on the level of bullying, bully fight and victimization.

Table 4: One-Way Analysis of Variance in Bullying, Bully, Fight and Victim Across Weight Groups

	20kg-39kg		Above 39kg-55kg		Above 55kg-75kg and above			
	n = 283		n = 275		n = 42			
Variables	M	SD	M	SD	M	SD	F	P
Bullying	39.35	12.981	34.45	11.813	35.17	11.693	11.334	.000
Bully	18.20	6.628	16.19	5.831	16.38	6.048	7.586	.001
Fight	11.31	4.776	9.69	4.421	9.26	4.340	10.152	.000
Victim	9.83	4.208	8.56	4.195	9.52	4.086	6.509	.002

*** $p < .001$.

Note N= Sample, M= Mean, SD= Standard deviation

As shown in the above table 4 there was significant difference of bullying behavior on weight among Bullying, Bully, and fight. The weight ($F=11.334$; $p>.05$) and at bully ($F=7.586$, $p>.05$) and for victim ($F=6.509$, $p>.05$) and for fight ($F=10.152$, $p>.05$). The participant in the weight group (20kg-39kg) are more likely to experience bullying compared to heavier weight group.

Table 5: Mean, Standard Deviation and One-Way Analysis of Variance in Bullying, Bully, Fight and Victim Across Health Condition Groups

	Not at all		Mildly Ill		Severely Ill			
	n = 446		n = 105		n = 49			
Variables	M	SD	M	SD	M	SD	F	P
Bullying	36.27	12.818	39.22	12.096	36.57	10.954	2.360	.095
Bully	16.87	6.315	18.38	6.177	17.06	6.263	2.445	.088
Fight	10.22	4.748	11.15	4.593	10.76	3.761	1.852	.158
Victim	9.17	4.269	9.69	4.288	8.76	3.739	.955	.385

*** $p < .001$.

Note N= Sample, M= Mean, SD= Standard deviation

Table 5 showed that there was no significant difference of bullying behavior on health condition among Bullying, Bully, and fight. The ($F=2.360$; $p<.05$) and at bully ($F=2.445$, $p<.05$) and for victim ($F=.955$, $p<.05$) and for fight ($F=1.852$, $p<.05$). Overall the results suggest that health condition, did not significantly affect the level of bullying, bully, fight, and victimization.

Discussion

The study examined bullying behaviors among children in orphanages, focusing on gender and body weight differences. Using independent samples t-tests and one-way ANOVA, the research highlighted essential demographic and physiological variables influencing bullying dynamics in these settings, revealing important implications for both theory and practical intervention. The t-test results indicated notable gender differences in physical altercations and victimization. Males were more involved in fights and experienced more victimization compared to females. These differences were significant aligning with literature suggesting that boys tend to engage in direct bullying, while girls are more inclined towards indirect forms (Cosma et al., 2022; Radliff et al., 2021). The orphanage environment may amplify this trend due to limited adult supervision and support systems. Social learning theory may explain these findings, suggesting that boys model behaviors observed from peers or authority figures who utilize dominance. In institutions, competition for resources can foster the reinforcement of physical dominance. Furthermore, cultural norms, particularly in collectivist societies like Pakistan, may discourage males from

displaying vulnerability, thereby normalizing physical aggression (Ng et al., 2021). The findings regarding victimization are noteworthy, as boys reported both higher levels of perpetration and victimization, implying that children in orphanages do not fit into a clear bully-victim dichotomy. Instead, they may oscillate between these roles, reflecting dynamic power interactions within the group. Previous studies support this dual-role theory (Dake et al., 2003; Sainz & Martín-Moya, 2023). One-way ANOVA results for weight categories showed significant variations, with children weighing 20–39 kilograms showing the highest levels of bullying. This emphasizes that body weight is crucial in peer interactions concerning aggression. Underweight children may be perceived as more vulnerable, thus becoming targets, while reacting aggressively to compensate may lead them to bully others. Research indicates that both underweight and overweight children face bullying risks due to physical stigmatization, which is often exacerbated in institutional settings with limited individualized care (Wang et al., 2020). The close-quarters living in orphanages can magnify scrutiny regarding physical appearances, affecting social dynamics related to body image. Interestingly, ANOVA results concerning the length of institutionalization revealed no significant effects. This finding suggests that the duration of a child's stay does not directly correlate with their involvement in bullying, contrasting with earlier studies linking longer institutional stays with behavioral problems (Nelson et al., 2014; Zeanah et al., 2009). Over time, children may adapt to their environment, learning to navigate social interactions without engaging in conflict. Additionally, the quality of care provided in orphanages may be a more crucial variable than duration. Effective supervision and emotional support could mitigate bullying behaviors, indicating that high-quality care contributes significantly to positive child outcomes (Ferdoushi et al., 2022; Biehal et al., 2019). The combined results from t-tests and ANOVA highlight that gender and physical characteristics, rather than institutional exposure alone, are pivotal in understanding bullying in orphanages. The findings advocate for tailored interventions within these facilities, such as weight-based bullying prevention programs, gender-sensitive psychoeducation, and peer mentoring initiatives. Training for staff should incorporate awareness of victimization signals, especially for underweight boys who might hide their distress. In conclusion, the study elucidated how gender and weight significantly impact bullying behaviors among orphaned children in Pakistan, whereas length of stay had no measurable influence. The insights emphasize the necessity for context-specific strategies aimed at preventing and addressing bullying, ensuring orphanages provide safe environments for vulnerable children. Integrating targeted psychosocial and physical health initiatives is essential in disrupting cycles of aggression and mitigating long-term harm.

Conclusion

This study explored the connection between bullying, physical health, and institutionalization duration among Pakistani orphans. It found significant links between gender and body weight with bullying behaviors, while institutional stay length was not a predictor. Males showed higher fighting and victimization rates, and those in the 20–39 kg weight range were more involved in bullying. Utilizing both traditional (t-tests, ANOVA) and advanced statistical methods (neural networks), the research identified key variables like age, education, and weight, emphasizing the need for targeted interventions considering individual vulnerabilities and institutional structures.

Limitations and Recommendations

The study has notable limitations, including reliance on self-reported data, which may introduce bias and underreporting on sensitive matters like bullying. Its cross-sectional design restricts causal interpretations, suggesting a need for longitudinal studies to better understand the long-term impacts of institutionalization and bullying on children's health. The sample sourced from three cities in Punjab limits the generalizability of findings to the overall population of institutionalized

children in Pakistan, as regional variations in policies and interactions could influence results. Moreover, key psychological factors such as trauma history and coping mechanisms were not evaluated, which could have provided additional insights. While a neural network analysis identified key predictors, machine learning output interpretations remain limited without qualitative context. Recommendations include implementing gender-sensitive programming in orphanages to address the higher incidence of physical bullying among boys and promote non-violent conflict resolution. Regular health assessments and nutritional support are vital for underweight children, as they are often more involved in bullying. Caregivers should receive training to recognize bullying signs and apply trauma-informed strategies. Psychoeducational interventions to enhance social skills, self-esteem, and emotional regulation are crucial, especially for new arrivals. Lastly, child welfare bodies should enforce standardized guidelines and thorough research should incorporate qualitative approaches and longitudinal designs to capture the evolving experiences of children in these settings.

Implications of Study

The study presents significant implications across theoretical, practical, and policy dimensions. Theoretically, it validates socio-ecological models, highlighting personal and environmental influences on behavior and emphasizing peer dynamics in bullying over duration of exposure. Practically, it equips orphanage administrators and social workers with indicators to identify at-risk children, advocating for proactive engagement and preventive strategies to mitigate bullying. At the policy level, it calls for enhanced investment in the wellbeing of children in state-run institutions, urging government and NGOs to adopt bullying prevention and child protection protocols as standard practice. Overall, the research lays the groundwork for transformative change in Pakistan's institutional care system, promoting healthier environments for orphaned children's holistic development.

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