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Tackling Bullying through Teacher and Peer Connectedness in Early Education

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Abstract
Bullying in preschools negatively impacts children's well-being and academic development. Several factors lead to bullying, including negative relationships in family and community. This study examines how positive relationships act as protective factors, emphasizing teacher-student and peer connectedness. Using Fuzzy Delphi Method (FDM) and Modified Nominal Group Technique (MNGT), perspectives of 11 experts and 21 teachers from Islamic early education were analyzed. Findings revealed stronger consensus on the importance of teacher-student relationships, with a (d) value of 0.049 and 98.9% agreement through FDM and 92.1% from MNGT. Strengthening these relationships fosters a supportive preschool environment and reduces bullying.

Keywords: bullying; peer relationship; preschool; teacher-pupils relationship

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1.0 Introduction
Bullying is widely recognized as a serious public health concern due to its long-term psychological, social, and emotional effects on individuals. Despite numerous intervention efforts, it remains a persistent problem in schools, often perpetuated by the passive role of bystanders. Research has shown that bullying behaviors can begin as early as the preschool years, appearing in nearly every classroom setting (Tanrikulu, 2020). While statistics vary, one study reported that 17.4% of children aged 6 to 10 had experienced bullying (von Marées & Petermann, 2009). In primary education, approximately 15% to 23% of students report being bullied within a six-month to one-year period (Wentzel & Ramani, 2016). In Malaysia, bullying has garnered national attention, as evidenced by findings from the Malaysian Institute of Public Health, which revealed that 79.1% of students in public schools were involved in bullying either as perpetrators, victims, or both (Sabramani et al., 2021).

Preschool represents a critical developmental stage where children begin to acquire social behaviors and foundational interpersonal skills. Early intervention during this period is essential for preventing the escalation of bullying-related behaviors and their potential long-

term consequences. While the causes and many cases of bullying in schools have been extensively studied, research on bullying prevention in preschool remains limited. Most existing literature focuses on older children, leaving a significant gap in understanding how to address such behaviors during the formative preschool years. This study aims to explore how teachers and peers can help foster stronger connections to prevent bullying in preschools. Utilizing the Fuzzy Delphi Method and the Nominal Group Technique, the study aims to identify effective strategies and elements that contribute to a supportive classroom environment conducive to positive social interactions and emotional development.

2.0 Literature Review
Emerging research has identified the preschool period as a pivotal stage for the development of both prosocial and antisocial behaviors. Bullying behaviors such as exclusion, name-calling, and physical aggression—are observable even in early childhood settings (Tanrikulu, 2020). However, these behaviors are often underestimated or misunderstood by early childhood educators, who may lack the training or awareness to recognize the severity of social bullying (Dawes et al., 2022). This lack of recognition can result in insufficient intervention, allowing negative behaviors to persist and evolve into more harmful patterns later in life. Wolke and Lereya (2019) argue that early bullying experiences, if left unaddressed, can lead to long-term psychological issues, including anxiety, low self-esteem, and increased aggression in adolescence and adulthood. Hence, it is essential for educators to have the competency to recognize bullying during the preschool years to address such behaviors and create effective interventions as measures to reduce the long-term psychological and physical effects on victims (Kovač & Cameron, 2021). Failure to address bullying can contribute to their escalation and have psychological consequences.

Preschool children typically conceptualize bullying in simpler terms, often equating it solely with aggressive physical behavior, unlike older children and adults who understand more complex elements such as power imbalance and intent (Kovač & Cameron, 2021). Educators, particularly in early childhood care settings, tend not to view bullying as a reflection of fixed personality traits but rather as harmful behaviors that require guidance and correction (Kovač & Cameron, 2021). This perception underscores the need for structured training and more effective intervention strategies in preschool environments. Therefore, teachers play a multifaceted role in preschool classrooms—not only as educators but also as mentors, caregivers, and role models. Their influence extends beyond academic instruction to the cultivation of emotional intelligence, empathy, and conflict resolution skills among young learners. A nurturing and inclusive classroom environment created by teachers can significantly reduce the likelihood of bullying, especially when they are equipped to detect early signs of social exclusion or aggression and respond appropriately (Dow-Fleisner et al., 2023).

Likewise, mutual peer support plays a pivotal role in the prevention of bullying, offering a profound impact on the emotional well-being of children. When children form strong, trusting friendships, they are not only better equipped to navigate life's challenges but also develop a sense of belonging and security within their peer group. These supportive connections provide emotional resilience, enabling them to stand up against bullying, whether they are direct victims or witnesses. More importantly, the positive influence of friendship can transform social dynamics, fostering empathy, understanding, and a collective commitment to kindness. In classrooms where cooperation, sharing, and inclusivity are celebrated, children are more likely to feel seen, valued, and respected, which in turn nurtures a culture that actively discourages bullying behaviors. By cultivating an environment where prosocial actions are the norm, educators and peers together can create a safe space where the focus shifts from division to unity, helping all children thrive and flourish in a supportive, non-judgmental community (Dow-Fleisner et al., 2023).

3.0 Methodology
To achieve the objective of the study, which is to identify the factors that influence most in preventing bullying incidents in terms of teacher-pupils connectedness and peers with the use of Fuzzy Delphi Method (FDM) and Modified Nominal Group Technique (MNGT) to collect and analyze the data. For the first stage, FDM was chosen and this technique has long been used in a study concerning expert opinion (Khorshidikia et al., 2024). It is a method based on a group of experts to study and gather ideas to form an agreement on a piece of information. Then, the MNGT method has been chosen by researchers because it has certain advantages, such as being able to consider the views of all participants and avoiding an individual dominating the group. In addition, NGT is also a very systematic, cost-effective, and adaptable method to prioritize the elements (Manera et al., 2019)

3.1 Study Participants
In this study, a total of 11 experts were selected using purposive sampling based on Norhanisha Yusof et al. (2022) who recommendation that Delphi studies involve 10 experts. These experts were lecturers and primary trainers specializing in early childhood and Islamic education. Additionally, 21 Islamic education preschool teachers with over seven years of teaching experience were chosen to evaluate the usability of the developed items. Participants were identified in collaboration with the Islamic Education Department, following specific criteria. This approach aligns with Harb et al.'s (2021) on ideal MNGT participant numbers.

3.2 Data Collection & Analysis
For this study, the Fuzzy Delphi Method (FDM) and Modified Nominal Group Technique (MNGT) were employed to gather feedback from experts on the key factors that influence teacher-student and peer relationships in preventing bullying in preschools. A purposive sample of 11 experts in early childhood and Islamic education participated in multiple rounds of questionnaires, rating items using a Likert scale. Their responses were converted into triangular fuzzy numbers, and defuzzification was conducted to obtain average (d) values, with consensus defined as $d \leq 0.2$ and at least 75% agreement. Thus, an item is accepted as relevant and crucial in influencing teacher-student and peer relationships in preventing bullying if it meets both the consensus threshold ($d \leq 0.2$) and the agreement

requirement (≥75% agreement). These criteria ensure that the final list of accepted factors is both reliable and representative of the collective expert opinion.

In the MNGT session, participants were divided into three groups, each led by a designated leader to manage discussions and record feedback. The session began with a presentation by the main researcher, followed by small-group discussions where suggestions were documented and used to refine the items. Participants then evaluated the revised items using a 5-point Likert scale. The data were analyzed using NGT-Plus software, which streamlined the analysis and ensured a structured interpretation of group consensus. For MNGT, an item was considered accepted if it achieved a high level of agreement among participants (e.g., at least 75%) and met the consensus threshold based on the ratings provided through the Likert scale.

4.0 Results

Based on the findings, the aspect of teacher-student connectedness ranked first with 98% agreement and a threshold value (d) ≤0.2, 0.041, followed by peer connectedness with 94% agreement and a threshold value (d) ≤0.2, 0.140. The teacher-student connectedness aspect, with a threshold value (d) ≤0.2 at 0.041 and 98% agreement, indicates that this aspect has gained expert consensus. All items have a threshold value (d) ≤0.2.The threshold value (d) is ≤0.2 for T-P:1, T-P:2, T-P6 (0.000), T-P:4 and T-P:5 (0.025), T-P:3 (0.045), T-P:7 and T-P:8 (0.061), and T-P:9 (0.081), with expert agreement exceeding 75% T-P:1, T-P:2, T-P:6, T-P:4, T-P:5, T-P:3, T-P:7, T-P:8 (100%) and TP-9: (90.9%).

The aspect of peer connectedness, with a threshold value (d) ≤0.2 at 0.140 and 94% agreement, signifies that this aspect also has received expert consensus. All items have a threshold value (d) ≤0.2, namely P-P:1, P-P:2 (0.045), P-P:3 (0.131) , P-P:5 (0.163), P-P:4 (0.174), P-P:6 (0.204)), with expert agreement exceeding 75%: P-P:1, P-P:2 (100 %), P-P:3 (91%) and P-P:5, P-P:4, P-P:6 (90.9%). Although the analysis indicates that item P-P6 exceeds the threshold value (d) ≤0.2, (0.204), but expert agreement percentages for all items exceed 75% which is 90.9%. Therefore, item P-P6 is accepted as a representative of the peer connectedness aspect. Subsequently, Table 1.0 presents the prioritization order as agreed upon by the experts.

The results show how connectedness with both teachers and peers plays a key role in bullying prevention. Among the items related to teacher-student connectedness, item T-P:1 (believing in students' potential), T-P:4 (providing academic support), and T-P:6 (complimenting good conduct) received the highest scores, each achieving a score of 99 (94%). Additionally, T-P:2 (teachers' care for their students) ranked fourth with a score of 98 (93%), while T-P:5 (advises students on improper conduct) also received a positive rating of 97 (92%). Item T-P:7 (teachers spending time with students) and T-P:9 (considering themselves as parental figures) both scored 96 (91%) and ranked sixth. However, lower scores were noted for T-P:3 (praying for students regularly) with 95 (90%) and T-P:8 (understanding students before administering discipline) with 95 (90%).

In terms of student connectedness with peers, the highest scores were recorded for P-P:1 (helps one another) and P-P:4 (races to do good deeds), both achieving a score of 98 (93%). P-P:5 (understands and empathizes with one another) ranked third with a score of 97 (92%). Item P-P:2 (shares things with one another) and P-P:3 (actively engages in school activities) both scored 95 (90%) and ranked fourth. Finally, P-P:6 (offers advice to one another) scored 96 (91%) and ranked sixth. Overall, teacher-student connectedness ranked higher than peer connectedness, with an average percentage of 92.10%, compared to 91.50% for peer connectedness. The findings of this study are shown in Table 1 below

Table 1. Fuzzy Delphi Method results and ranking

Aspek	Code	Item	'd' item	% Expert consensus	Defuzzification Value	Item Rank	Overall status	'd' Aspect	% Expert consensus	Rank
Teacher - children Connectedness	T-P:1	Believes in each student's potential for success	0	100%	0.967	1	Accept			
	T-P:2	Cares about the students	0	100%	0.967	1	Accept			
	T-P:6	Acknowledge good conduct of students	0	100%	0.967	1	Accept			
	T-P:4	Provides academic support to students	0.025	100%	0.958	4	Accept	0.049	98.99	1
	T-P:5	Advises students on improper conduct	0.025	100%	0.958	4	Accept			
	T-P:3	Prays for students regularly	0.045	100%	0.948	6	Accept			
	T-P:7	Spends time with students	0.061	100%	0.939	7	Accept			
	T-P:8	Tends to understand	0.061	100%	0.939	7	Accept			

Element	Code	Item						
		students before quickly punishing						
	T-P:9	Considers themselves as parental figures to students	0.081	90.90%	0.933	9	Accept	
Peer Connectedness	P-P:1	Helps one another	0.045	100%	0.948	1	Accept	
	P-P:2	Shares things with one another	0.045	100%	0.948	1	Accept	
	P-P:3	Actively engages in school activities	0.131	91%	0.906	3	Accept	0.14 94 2
	P-P:5	Understands and empathizes with one another	0.163	90.90%	0.891	4	Accept	
	P-P:4	Races to do good deeds	0.174	90.90%	0.888	5	Accept	
	P-P:6	Offers advice to one another	0.204	90.90%	0.864	6	Accept	

The MNGT study's results reveal significant insights into connectedness with teachers and peers. Among the items related to teacher-student connectedness, the item **T-P:1** (believing in students' potential), **T-P:4** (providing academic support), and **T-P:6** (complimenting good conduct) received the highest scores, each achieving a score of 99 (94%). Additionally, **T-P:2** (teachers' care for their students) ranked fourth with a score of 98 (93%), while **T-P:5** (advises students on improper conduct) also received a positive rating of 97 (92%). Item **T-P:7** (teachers spending time with students) and **T-P:9** (considering themselves as parental figures) both scored 96 (91%) and ranked sixth. However, lower scores were noted for **T-P:3** (praying for students regularly) with 95 (90%) and **T-P:8** (understanding students before administering discipline) with 95 (90%).

In terms of student connectedness with peers, the highest scores were recorded for **P-P:1** (helps one another) and **P-P:4** (races to do good deeds), both achieving a score of 98 (93%). **P-P:5** (understands and empathizes with one another) ranked third with a score of 97 (92%). Item **P-P:2** (shares things with one another) and **P-P:3** (actively engages in school activities) both scored 95 (90%) and ranked fourth. Finally, **P-P:6** (offers advice to one another) scored 96 (91%) and ranked sixth. Overall, teacher-student connectedness ranked higher than peer connectedness, with an average percentage of 92.10%, compared to 91.50% for peer connectedness. The findings of this study are shown in Table 2 below

Table 2. Modified Nominal Group Technique results and ranking.

Element	Code	Item	Score by group			Total Score	%	Rank	Status	Average (%)
			A (n=7)	B (n=7)	C (n=7)					
Teacher-pupil Connectedness	T-P:1	Believes in each student's potential for success	33	33	33	99	94	1	Accept	92.11%
	T-P:4	Cares about the students	33	32	34	99	94	1	Accept	
	T-P:6	Acknowledge good conduct of students	34	31	34	99	94	1	Accept	
	T-P:2	Cares about the students	33	32	33	98	93	4	Accept	
	T-P:5	Advises students on improper conduct	33	32	32	97	92	5	Accept	
	T-P:7	Spends time with students	32	32	32	96	91	6	Accept	
	T-P:9	Considers themselves as parental figures to students	31	32	33	96	91	6	Accept	
	T-P:3	Prays for students regularly	33	30	32	95	90	8	Accept	
Connectedness with peers	P-P:1	Helps one another	32	33	33	98	93	1	Accept	91.50%
	P-P:4	Races to do good deeds	33	32	33	98	93	1	Accept	

P-P:5	Understands and empathizes with one another	32	32	33	97	92	3	Accept
P-P:2	Shares things with one another	32	32	31	95	90	4	Accept
P-P:3	Actively engages in school activities	32	31	32	95	90	4	Accept
P-P:6	Offers advice to one another	32	32	32	96	91	6	Accept

Note: Percentage of agreement (>70%)

5.0 Discussion

The teacher-student relationship is the most crucial factor in preventing bullying in preschool settings above peer relationship for both teachers and experts in this study. This statement is parallel with Longobardi et al., (2021) that highlight peer relationships is important but secondary to teacher-student relationships. Unlike in later educational stages, preschoolers rely heavily on adults for emotional security, behavioral guidance, and social learning (Denham et al., 2017). Teachers serve as the first line of defense, actively identifying and addressing aggressive behaviors before they escalate. More than just educators, teachers act as mentors, caregivers, and role models, shaping the social environment in which children interact (Harrison & Lim, 2022). Their ability to instill prosocial behaviors, model empathy, and establish clear expectations makes them the most influential factor in creating a safe and inclusive classroom.

Apart from that, the teacher-student connectedness rankings highlight subtle yet meaningful differences between expert and teacher perspectives, which can influence bullying prevention strategies. Both groups agree that believing in students' potential, acknowledging good conduct and providing academic support are critical, as these items consistently rank highest. This reinforces the idea that when students feel valued and supported academically and morally, they are more likely to develop confidence and resilience, reducing their vulnerability to bullying (Voisin et al., 2023). Belief in each student's potential plays a crucial role in shaping the support, motivation, and environment they experience in the classroom. When teachers genuinely believe in their students, they are more likely to provide personalized academic and emotional support, fostering a positive atmosphere where students feel valued and capable of success (Simonová et al., 2019). This belief also influences how teachers respond to behavior, encouraging good conduct and reinforcing positive actions. Moreover, it contributes to bullying prevention by creating an inclusive classroom culture where students feel acknowledged and less likely to engage in aggression. Recognizing and rewarding prosocial behaviors further strengthens this environment, promoting kindness, empowering bystanders to act, and encouraging teacher intervention (None Mila Hasanah et al., 2024). Together, belief in students, tailored support, and consistent reinforcement of positive behavior help cultivate a safe, respectful, and supportive learning space.

Among peer-related items, the most impactful item identified by both experts and teachers is "helping one another," as it fosters a strong sense of mutual support, cooperation, and positive peer relationships that contribute to a more inclusive and harmonious classroom environment. When teachers are competent to intentionally incorporate prosocial behaviors into daily classroom routines, young children begin to value collaboration over dominance, thereby reducing tendencies toward bullying. In the context of preschool education, actions such as helping one another and engaging in friendly competition to do good deeds are especially vital in cultivating a strong foundation of mutual support among peers. These behaviors not only nurture empathy and cooperation but also serve as protective factors against exclusion, aggression, and social isolation. By fostering environments where children routinely support and care for one another, teachers promote positive peer interactions and a strong sense of community. This collective sense of belonging significantly lowers the risk of bullying, as children are taught to respect and value their peers, contributing to a safer and more inclusive classroom climate (Slaten et al., 2019). Moreover, children who internalize these prosocial norms are more likely to act as defenders in bullying situations, actively intervening to support victims and discourage harmful behavior (Nelson et al., 2020). Through consistent reinforcement of these values, early childhood educators play a critical role in shaping compassionate, socially responsible individuals from a young age.

6.0 Recommendation and Conclusion

This study highlights the pivotal role of teacher-student and peer connectedness in preventing bullying in preschool settings. Strong teacher-student relationships build emotional security, social development, and positive behavior, while peer connectedness fosters cooperation, empathy, and a supportive classroom climate. These findings suggest that early childhood education programs should prioritize strategies to strengthen both types of relationships, including training in emotional intelligence and conflict resolution. However, this study is limited to Islamic preschool settings and relies mainly on teacher and expert perceptions. Future research should adopt longitudinal and mixed-method approaches, incorporating observations and children's voices, to better understand these dynamics across diverse contexts. Ultimately, fostering meaningful connections early on offers a proactive pathway to nurturing kindness, resilience, and lifelong social competence in young children.

Acknowledgement

References

Dawes, M., Starrett, A., & Irvin, M. J. (2022). Preservice Teachers' Bullying Attitudes and Intervention Likelihood: Differences by Form of Bullying. *International Journal of Bullying Prevention*. https://doi.org/10.1007/s42380-022-00153-7

Denham, S. A., Bassett, H. H., & Miller, S. L. (2017). Early Childhood Teachers' Socialization of Emotion: Contextual and Individual Contributors. *Child & Youth Care Forum, 46*(6), 805–824. https://doi.org/10.1007/s10566-017-9409-y

Dobbie, A., Rhodes, M., Tysinger, J. W., & Freeman, J. (2004). Using a modified nominal group technique as a curriculum evaluation tool. *Fam Med, 36*(6), 402–406. PMID: 15181551.

Dow-Fleisner, S., Leong, A. D., & Lee, H. (2023). The interaction between peer bullying and school connectedness on youth health and wellbeing. *Children and Youth Services Review, 155*, 107147. https://doi.org/10.1016/j.childyouth.2023.107147

Harrison, M. G., & Lim, L. (2022). Mentors' experiences of a school-based mentoring programme in Hong Kong. *Asia Pacific Journal of Education*, 1–13. https://doi.org/10.1080/02188791.2022.2074371

Hasanahmil, N. M., Arafat, N. Y., Barni, N. M., Thib, A., & Aprilianto, A. (2024). Teachers' Strategies for Managing Disruptive Behavior in The Classroom During The Learning Process. *Nazhruna Jurnal Pendidikan Islam, 7*(3), 628–645. https://doi.org/10.31538/nzh.v7i3.7

Khorshidikia, S., Rismanchian, M., & Habibi, E. (2024). A narrative review on the application of Delphi and fuzzy Delphi techniques in the cement industry. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. https://doi.org/10.1177/10519815241297468

Kovač, V. B., & Cameron, D. L. (2021). Are We Talking about the Same Thing? A Survey of Preschool Workers' Attitudes and Beliefs about Bullying. *Child Care in Practice*, 1–15. https://doi.org/10.1080/13575279.2021.1951167

Longobardi, C., Ferrigno, S., Gullotta, G., Jungert, T., Thornberg, R., & Marengo, D. (2021). The links between students' relationships with teachers, likeability among peers, and bullying victimization: the intervening role of teacher responsiveness. *European Journal of Psychology of Education*. https://doi.org/10.1007/s10212-021-00535-3

Manera, K., Hanson, C. S., Gutman, T., & Tong, A. (2019). Consensus Methods: Nominal Group Technique. *Handbook of Research Methods in Health Social Sciences*, 737–750. https://doi.org/10.1007/978-981-10-5251-4_100

Nelson, D. A., Bailey, M. E., Coyne, S. M., Cramer, C. M., & Olsen, J. A. (2020). Does parenting correspond with children's defending behavior? Examining linkages in the context of peer social preference. *Social Development*, *29*(1), 303–319. https://doi.org/10.1111/sode.12406

None Mila Hasanah, Arafat, N. Y., Barni, N. M., Thib, A., & Andika Aprilianto. (2024). Teachers' Strategies for Managing Disruptive Behavior in The Classroom During The Learning Process. *Nazhruna Jurnal Pendidikan Islam*, 7(3), 628–645. https://doi.org/10.31538/nzh.v7i3.7

Sabramani, V., Idris, I. B., Ismail, H., Nadarajaw, T., Zakaria, E., & Kamaluddin, M. R. (2021). Bullying and Its Associated Individual, Peer, Family and School Factors: Evidence from Malaysian National Secondary School Students. *International Journal of Environmental Research and Public Health, 18*(13). https://doi.org/10.3390/ijerph18137208

Simonová, J., Straková, J., & Greger, D. (2019). Academic Optimism and Non-Cognitive Outcomes in Czech Lower Secondary Schools. *Sociológia - Slovak Sociological Review, 3*. https://doi.org/10.31577/sociologia.2019.51.3.15

Slaten, C. D., Rose, C. A., & Ferguson, J. K. (2019). Understanding the relationship between youths' belonging and bullying behaviour: An SEM Model. *Educational and Child Psychology, 36*(2), 50–63. https://doi.org/10.53841/bpsecp.2019.36.2.50

Tanrikulu, I. (2018). Teacher reports on early childhood bullying: how often, who, what, when and where. *Early Child Development and Care*, 1–13. https://doi.org/10.1080/03004430.2018.1479404

Voisin, L. E., Phillips, C., & Afonso, V. M. (2023). Academic-Support Environment Impacts Learner Affect in Higher Education. *Student Success, 14*(1), 47–59. https://doi.org/10.5204/ssj.2588

Von Marées, N., & Petermann, F. (2009). Bullying in primary schools: Forms, gender differences, and psychosocial correlates. *Psychologische Rundschau, 60*(3), 152–162. https://doi.org/10.1026/0033-3042.60.3.152

Wentzel, K. R., & Ramani, G. B. (2016). *Handbook of Social Influences in School Contexts*. Taylor and Francis.

Wolke, D., & Lereya, S. T. (2019). Long-term effects of bullying. *Archives of Disease in Childhood, 100*(9), 879–885. https://doi.org/10.1136/archdischild-2014-306667