THE SOLUTION OF ANGER REGULATION AMONG ADOLESCENTS: THE NOMINAL GROUP TECHNIQUE APPROACH

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Article Info	ABSTRACT
	This study employed the Nominal Group Technique (NGT) to pinpoint the key factors influencing adolescent anger management, drawing on Albert Bandura's Social Learning Theory. The goal was to identify crucial elements for effective interventions in managing adolescent anger. Seven experts in student mental health and psychology assessed factors in three domains: Behavior, Environmental Factors, and Personal Factors. The findings revealed that imitation (77.78%) is the most critical behavioral factor, highlighting the significance of observational learning. The school environment (74.07%) emerged as the top environmental factor, indicating the strong impact of educational settings on emotional regulation. Cognitive skills (74.07%) were deemed the most vital personal factor, underscoring the importance of enhancing problem-solving and critical thinking in anger management strategies. Unexpectedly, the experts did not consider factors like family influence, cultural norms, and emotional regulation as suitable, challenging traditional perspectives and suggesting a shift towards a more cognitive-focused approach. This study offers a prioritized list of factors for designing targeted adolescent anger management interventions and underscores the necessity of a multifaceted approach that incorporates behavioral modeling, school environment, peer influences, and cognitive skills. Future research should explore the long-term effectiveness of these interventions and further investigate the role of the less prioritized factors.

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INTRODUCTION

Anger is a powerful emotion that can greatly impact individuals and society if not properly managed. While it's a natural reaction to perceived threats or injustices, uncontrolled anger can lead to serious outcomes such as conflicts, injuries, substance abuse, and mental health issues like depression and anxiety (Dillon et al., 2021; Saghir et al., 2018). Despite being a global phenomenon, the complexities of anger, especially the distinctions between state anger (temporary reactions) and trait anger (long-lasting personality traits), are not fully understood. This gap in understanding underscores the need for more in-depth research into the cognitive mechanisms and exploration of anger traits to develop effective and culturally adaptable management strategies (Jones et al., 2019). In Asian cultures, where emotional restraint and social harmony are highly valued, anger is often managed through collective and non-confrontational methods such as community support, meditation, spiritual practices, and mindfulness (Testoni et al., 2023). These traditional practices have long been crucial in maintaining social cohesion. However, with the growing influence of modern psychological insights, there is an increasing need to combine these traditional methods with evidence-based approaches (Prout et al., 2019). This integration is vital for creating culturally sensitive anger management interventions that honor local values while enhancing their effectiveness through modern psychological principles (Fegert et al., 2020). In Malaysia, addressing anger among adolescents is particularly important due to the unique challenges they face, such as academic stress, social expectations, and family conflicts. These factors can significantly influence their emotional regulation, leading to uncontrolled anger that affects their mental health and social relationships (Ghasemifard et al., 2020). There is a pressing need for targeted research to explore the cognitive and neural aspects of anger among Malaysian adolescents. By developing culturally specific anger management strategies, we can better support the emotional well-being of Malaysian youth, enabling them to navigate their environment with greater resilience and emotional stability (Nevers-Ashton, 2023).

LITERATURE REVIEW

Research on adolescent anger management has received considerable attention in recent studies, focusing on the effectiveness of interventions across various contexts. While some research underscores the potential benefits of such studies, including promoting healthy adult functioning and fostering social inclusion, other studies highlight gaps in understanding their clinical and cost-effectiveness (Carr & McDonald 2019; Chean Wei, Othman, and Hashim 2023; McDonald et al. 2019; Uttley et al. 2015). For example, a systematic review by Uttley et al. (2020) points out the lack of formal synthesis of evidence regarding the clinical and cost-effectiveness of adolescent anger management for common mental disorders, stressing the need for further research. Additionally, Haeyen (2019) suggests that adolescent anger management could be a promising intervention for individuals diagnosed with personality disorders, but its effectiveness in specific populations, such as primary school children, requires more thorough investigation (McDonald and Holttum 2020). Moreover, the potential for adolescent anger management to expand into new areas and its impact on improving mental health has not been fully explored (Chean Wei et al. 2023).

In the realm of adolescent anger management research, the importance of the Nominal Group Technique (NGT) is apparent. First, NGT provides a systematic framework for collecting and organizing ideas from a panel of experts or participants, ensuring that all viewpoints are thoroughly considered. This structured approach aids in generating well-informed decisions. Second, the technique enhances the quality of feedback by allowing participants to evaluate and categorize prioritized factors. Through a layered evaluation process, NGT enables a deeper and more detailed assessment, which improves the accuracy of study results and helps identify the most critical elements in adolescent anger management (Carr & McDonald 2019; Uttley et al. 2021).

Third, NGT ensures equitable participation from all group members, reducing the influence of individual dominance and increasing the diversity of views in the decision-making process, ensuring that each perspective is fairly represented. Fourth, NGT facilitates the identification and prioritization of key factors through a layered evaluation process, allowing researchers to focus on the most crucial elements. Finally, the technique promotes consensus within the group by enabling participants to discuss and vote on relevant factors, making it a valuable tool for collective decision-making. This approach ensures that study results reflect the comprehensive views of the group. By integrating both qualitative and quantitative methods, adolescent anger management research can

achieve a more comprehensive evaluation, addressing existing knowledge gaps (Capacio 2017; Chean Wei et al. 2023).

The Theory

To increase awareness about anger issues among adolescents, the use of appropriate counseling theories is crucial for developing effective strategies. These theories aid in understanding the factors influencing adolescent anger behavior and the underlying causes driving behavior change. Suitable theories for this study include Spielberger's Anger Theory (1985), Natalie Rogers' Art Therapy Theory (1993), and Social Cognitive Theory (SCT). These theories offer unique and meaningful perspectives for shaping awareness strategies tailored to anger control methods that meet adolescents' needs.

We used Bandura's Social Cognitive Theory in this study because it is a dominant theory for understanding human anger, especially in adolescents, and emphasizes the importance of the interaction between personal factors, behavior, and the environment in shaping adolescent behavior. Albert Bandura's Social Cognitive Theory (SCT) is one of the most influential theories in understanding human psychology and behavior.This theory highlights that individual behavior does not occur in isolation but is influenced by the complex interaction between personal factors, learned behaviors, and the social environment. In the context of anger, SCT explains that adolescents do not merely react to situations based on instinct but through a learning process involving observing the behavior of others and personal experiences that shape their perceptions of what is acceptable or not in certain situations.

In this study, Social Cognitive Theory provides a robust theoretical framework for understanding how anger behaviors can be formed, modified, and maintained through social interactions and personal experiences. For example, an adolescent may learn how to manage anger by imitating the behavior of parents, peers, or public figures they admire. If aggressive behavior observed in their social environment is often rewarded or not punished, the adolescent may perceive such behavior as acceptable, appropriate, and adopt it. Therefore, SCT offers a dynamic and comprehensive approach to understanding the influence of anger behaviors among adolescents, emphasizing the importance of the social environment and ongoing learning in shaping their emotional responses.
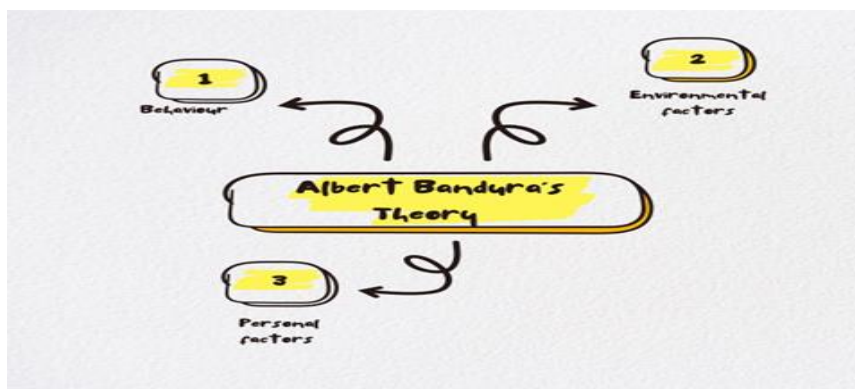

Figure 1: Research Model

Table 1: List of constructs and items found in the research model.

The constructs and items for anger management research;

Construct	Items	High Levels	Low Levels
Personal	**Self-Efficacy**	• Increases confidence in managing anger. Enhances ability to overcome barriers.	• May lead to higher levels of unmanaged anger. Decreases likelihood of seeking help.
	Outcome Expectations	• Boosts motivation and participation in strategies. Encourages active engagement.	• Reduces motivation. May lead to apathy toward efforts.
	Knowledge	• Improves understanding of triggers and techniques. Facilitates better handling of anger.	• Limits awareness of effective strategies. Results in inadequate management.
	Perceived Control	• Strengthens belief in managing and controlling anger. Promotes proactive management.	• May lead to feelings of helplessness. Decreases engagement in practices.
	Motivation	• Encourages active involvement in activities. Enhances persistence in applying strategies.	• Results in lower participation. Reduces effectiveness of efforts.
	Personal Experience	• Increases empathy and commitment. Provides a personal	• May not significantly impact attitudes or behavior.

		connection to strategies.	
Behavior	**Information-Seeking Behavior**	• Improves knowledge and proactive management. Enhances engagement with resources.	• Limits knowledge acquisition. May result in less effective strategies.
	Preventive Behavior	• Reduces risk factors associated with anger. Improves overall management.	• Increases risk of unresolved issues. May lead to poor management.
	Communication Behavior	• Promotes awareness and shared strategies. Facilitates community support.	• Limits support and shared understanding. May reduce effectiveness of efforts.
	Participation Behavior	• Increases exposure to programs and support. Enhances effectiveness of initiatives.	• Reduces opportunities for engagement. Limits effectiveness of programs.
	Anger Management Behavior	• Enhances mental health and reduces issues. Supports long-term management.	• May lead to continued issues. Results in poor mental health outcomes.
	Supportive Behavior	• Provides crucial help to individuals. Promotes community well-being.	• May result in increased isolation. Reduces effectiveness of efforts.
Environment	**Information Access**	• Facilitates greater knowledge and effective practices. Enhances	• Restricts learning and applying strategies. Limits

		engagement with resources.	effectiveness of practices.
	Health Infrastructure	• Supports effective management. Provides necessary resources.	• Hinders access to support and services. Limits effectiveness of initiatives.
	Policies and Regulations	• Encourages comprehensive strategies. Promotes community engagement.	• Results in insufficient support and resources. Limits effectiveness of programs.
	Community Support	• Enhances effectiveness of programs. Increases community involvement.	• Limits engagement with efforts. Reduces effectiveness of initiatives.
	Media and Communication	• Increases awareness and participation. Enhances public engagement.	• Reduces visibility of efforts. Limits public engagement.
	Social Environment	• Enhances individual commitment. Provides community support.	• Results in less effective management. Increases challenges in handling issues.

METHODOLOGY

This study utilized the Nominal Group Technique (NGT) as its primary research method, engaging seven experts from the fields of counseling, teaching, and psychology. Due to challenges in scheduling face-to-face meetings, the NGT sessions were held online using Google Meet. The experts participated in a two-hour brainstorming session following NGT methodology to develop ideas and solutions pertinent to their areas of expertise. Following the session, the researcher applied a specific analysis based on the NGT approach to achieve results aligned with the study's objectives. The experts demonstrated exceptional cooperation throughout the academic discussion.

NGT Technique Steps

The Nominal Group Technique (NGT) is a structured process designed to capture collective opinions on a specific topic. Initially developed as a method for participatory social planning (Delbecq, Van de Ven, & Gustafson, 1975), NGT has since been applied in exploratory research, citizen engagement, expert consultation, and proposal reviews. While its application has extended to educational research (O'Neil & Jackson, 1983; Lomax & McLeman, 1984; Lloyd-Jones, Fowell, & Bligh, 1999; MacPhail, 2001), it is more commonly used in health studies within the social sciences.

NGT involves four distinct phases:
1. Independent generation of ideas in response to a stimulus question.
2. Sharing and listing of these ideas in a round-robin fashion without discussion.
3. Clarification of each idea and grouping of similar ideas.
4. Individual voting to prioritize ideas.

Typically, an NGT session lasts 1.5 to 2 hours (Gibson & Soanes, 2000) and includes 5 to 10 participants (Delbecq, Van de Ven, & Gustafson, 1975; O'Neil & Jackson, 1983). The researcher primarily serves as a facilitator and administrator to minimize their impact on the data (Lloyd-Jones, Fowell, & Bligh, 1999). Unlike other methods criticized for researcher bias (Lomax & McLeman, 1984), NGT minimizes this by allowing the group to drive the organization, categorization, and prioritization of ideas. However, the formulation of the stimulus question is vital for the technique's success. In a practical example of NGT, participants were tasked with designing a small project to improve community health with a budget of $500. The researcher facilitated the session, allowing participants to independently list ideas, which were then transferred to an Excel sheet projected on a screen. After discussing and clarifying the ideas, participants rated their top choices using a five-card system. This approach focused on selecting the most actionable ideas by limiting the rating process to the top suggestions, addressing common rating errors associated with larger numbers of ideas.

Data Analysis

This study presents three main constructs: personal, behavior, and environment. Each construct includes 6 items and involves three response options: 1- disagree, 2- neutral, and 3- agree. The respondents, who are field experts, discuss the constructs and items in groups. Subsequently, the respondents vote on the items based on their opinions and expertise. The data obtained will be analyzed by converting the voting scores into percentage values. The results of the respondents' votes will be quantitatively assessed through a ranking process or prioritization of ideas.

The analyzed data involves converting the experts' voting scores into percentage values and comparing them with the evaluation criteria set based on literature. The voting percentage should exceed 70%, which is the accepted range in NGT. This range must align with the experts' view that the acceptance percentage should be based on the score percentage value, where the applicability of the measured element must exceed 70%. Additionally, the findings of the elements are sorted based on the total score received to determine priority.

RESEARCH FINDINGS

Personal

Table 2: anger awareness for personal items

No	Items/elements	Total Items Score	Percentage %	Rank Priority	Voters Consensus
1	Self-Efficacy	26	96.30	2	Suitable
2	Outcome Expectations	27	100	1	Suitable
3	Knowledge	25	92.59	3	Suitable
4	Perceived Control	25	92.59	3	Suitable
5	Motivation	26	96.30	2	Suitable
6	Personal experience	26	96.30	2	Suitable

Table 2 presents an analysis of anger awareness based on personal items discussed by experts in the study. Each item is evaluated based on the percentage of votes received, with the overall percentage representing the level of agreement among the respondents. The analysis reveals that all personal items have high percentages, with "Outcome Expectations" receiving the highest percentage of 100%, indicating unanimous agreement among experts that positive outcome expectations in anger management are the most critical factor. Meanwhile, "Self-Efficacy," "Motivation," and "Personal Experience" each received a percentage of 96.30%, reflecting a strong consensus among experts on the importance of self-confidence, motivation, and personal experience in managing anger.

On the other hand, "Knowledge" and "Perceived Control" received percentages of 92.59%, showing high but slightly lower agreement compared to other items. This suggests that while knowledge about anger triggers and perceived control are important, they are considered somewhat less critical compared to other factors in the context of anger management. All items are classified as "Suitable" based on expert consensus, indicating that they are all deemed relevant and significant in understanding and effectively managing anger. The high overall percentages in this table demonstrate a strong agreement among experts regarding the personal factors influencing anger management.

Behavior

Table 3: Anger awareness for behavior items

No	Items/elements	Total Items Score	Percentage %	Rank Priority	Voters Consensus
1	Information Seeking Behavior	24	88.89	3	Suitable
2	Preventive Behavior	26	96.30	2	Suitable
3	Communication Behavior	26	96.30	2	Suitable
4	Participation Behavior	23	85.19	4	Suitable
5	Health Management Behavior	27	100	1	Suitable
6	Supportive Behavior	27	100	1	Suitable

Table 3 outlines the analysis of anger awareness based on behavior items identified in this study. The data reveals that the items "Health Management Behavior" and "Supportive Behavior" both achieved the highest percentage of 100%, indicating that all experts agreed that health management and

providing support are the most crucial aspects of anger management. These items are ranked at the top, demonstrating that proactive health behavior and social support are considered highly relevant and effective in managing anger.

On the other hand, "Preventive Behavior" and "Communication Behavior" each received a percentage of 96.30%, reflecting a very high level of agreement regarding the importance of preventive and communication behaviors in anger management. "Information-seeking Seeking Behavior" and "Participation Behavior" have slightly lower percentages of 88.89% and 85.19%, respectively, indicating that while there is good agreement, these are considered somewhat less critical than the other items. Nonetheless, all items are classified as "Suitable," indicating that all behavior-related factors are important and relevant for anger awareness and management. Overall, these results underscore that behaviors related to support, health management, and prevention are viewed as key components in anger management strategies.

Environment

Table 4: anger awareness for environment Items

No	Items/elements	Total Items Score	Percentage %	Rank Priority	Voters Consensus
1	Information Access	26	96.30	2	Suitable
2	Health Infrastructure	26	96.30	2	Suitable
3	Policies and Regulations	25	92.59	3	Suitable
4	Community Support	26	96.30	2	Suitable
5	Media and Communication	26	96.30	2	Suitable
6	Social Environment	27	100	1	Suitable

Table 4 presents the analysis of anger awareness for environmental items, evaluating the consensus among experts on various aspects. The data indicate that "Social Environment" received the highest percentage at 100%, signifying unanimous agreement among experts that the social environment is the most critical factor affecting anger management. This is closely followed by "Information Access," "Health Infrastructure," "Community Support," and "Media and Communication," each scoring 96.30%. These items are ranked second in priority, demonstrating strong agreement on their significance in supporting effective anger management. The high percentages across these items underscore the crucial role of accessible information, adequate health infrastructure, community backing, and effective media communication in influencing anger management practices.

On the other hand, "Policies and Regulations" received a slightly lower percentage of 92.59% and is ranked third. This suggests that while policies and regulations are considered important, they are slightly less critical compared to other environmental factors. The overall consensus indicates that all the listed environmental items are deemed suitable for supporting anger management strategies, with "Social Environment" emerging as the most crucial element. The consistently high percentages reflect a robust agreement among experts on the importance of these environmental factors in creating a supportive context for managing anger effectively.

DISCUSSIONS

This study sheds light on adolescent anger regulation by examining key factors through the framework of Albert Bandura's Social Learning Theory. The findings highlight the crucial role of behavioral modeling, with imitation being identified as the most significant element, aligning with Bandura's focus

on observational learning (Bandura, 2018). This indicates that effective interventions should prioritize providing positive role models and demonstrating appropriate anger management techniques. Additionally, the study underscores the importance of the school environment in influencing adolescent behavior and emotional regulation (Crosnoe & Elder, 2021), suggesting that school-based anger management programs are essential. A positive school climate can significantly enhance adolescents' ability to manage anger, underscoring the need for active involvement from educational institutions in these interventions.

Interestingly, the expert panel did not emphasize traditionally significant factors such as family influence, cultural norms, and emotional regulation, challenging conventional perspectives on anger management. This shift may reflect a growing emphasis on cognitive approaches, as indicated by the high value placed on cognitive skills and self-efficacy (Beck & Haigh, 2022). The focus on cognitive skills aligns with cognitive-behavioral strategies, suggesting that improving problem-solving skills and boosting confidence in emotion management may be crucial for addressing anger issues. This highlights the need to reassess the integration of traditional factors into intervention strategies and to develop a more nuanced understanding of their impact.

The study advances research on adolescent anger regulation by identifying key intervention factors and stressing the need for comprehensive approaches. Future research should investigate why some traditionally important factors received lower ratings and explore how these elements can be effectively incorporated into anger management strategies. Longitudinal studies evaluating the long-term effectiveness of interventions based on these findings will be crucial for refining approaches to adolescent anger regulation. As our understanding of these dynamics grows, it is vital to develop evidence-based interventions that support adolescents in managing their anger and improving their overall emotional well-being.

CONCLUSION AND RECOMMENDATION

This study provides valuable insights into managing adolescent anger through the lens of Albert Bandura's Social Learning Theory, emphasizing the importance of behavioral modeling. The findings reveal that imitation is a key component, highlighting the need for positive role models and effective anger management techniques in interventions. The reduced emphasis on traditional factors like family influence and cultural norms suggests a shift toward cognitive-behavioral approaches.

Firstly, it is recommended to implement targeted anger management programs in schools, focusing on behavioral modeling and effective techniques. Schools should create environments that support students in practicing these skills, facilitating their emotional regulation and management of anger.

Secondly, interventions should prioritize cognitive-behavioral approaches by incorporating strategies that enhance cognitive skills, such as problem-solving and self-efficacy. Strengthening these mental skills will help adolescents better manage their anger and develop more effective coping mechanisms.

Thirdly, integrating traditional factors, such as family influence and cultural norms, into anger management strategies is essential. Future research should investigate how to incorporate these elements effectively, ensuring that interventions address a broader range of influences on adolescents' anger.

Lastly, longitudinal studies are necessary to evaluate the long-term effectiveness of anger management interventions. Ongoing assessments will refine strategies and enhance their impact over time.

Additionally, training educators and families in anger management techniques will provide further support to adolescents, helping them manage their emotions more effectively.

ACKNOWLEDGMENT
The authors wish to express their deepest gratitude to all participants, including counseling experts, teachers, and psychologists, who generously shared their experiences during the interviews for this study.

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