Hidden Influence: Designing Effective Interventions for Adolescents Who Don't Recognize Peer Pressure on Themselves

Introduction

Whether it's trying alcohol at a party or placing an online bet, people often take their biggest risks when they are under the influence of their peers (Goel & Malik, 2017; Langhinrichsen-Rohling et al., 2004). Peer pressure begins to influence decision-making at a very young age, even as early as four years old (Haun & Tomasello, 2011). As children grow, the impact of peer influence increases significantly (Steinberg & Monahan, 2007), further highlighting the need for targeted strategies. Adolescence[1] with poor coping strategies are more likely to fall into negative effects from peer influence, especially when they experience unmet emotional needs (Inguglia et al., 2019). For example, research suggests that difficulties regulating frustration can particularly lead to poor responses to social stress (Inguglia et al., 2019). As a result, adolescents may develop and engage in unhealthy behaviors, such as binge eating and drinking (Inguglia et al., 2019). Despite these unhealthy behaviors having a significant impact on the lives of adolescents, many recognize peer pressure in the decisions of others but fail to recognize it in their own lives (Parrado-González et al., 2023). The lack of self-awareness adolescents have surrounding peer pressure creates a challenge for intervention programs targeted towards risk-taking behaviors, because it is difficult for them to desire change if they don't see an issue in the first place.

Research has tied productive metacognitive skills to responsible decision-making among adolescents (Jankowski, 2024). Metacognition is defined as the ability to evaluate thoughts based on pre-existing knowledge (Belte et al., 2024; Chidley et al., 2025). However, the effects of

[1] An adolescence constitutes ages 10 to 19 (Adolescent Health, 2025).

metacognitive skills specifically in relation to peer pressure remain largely under-researched. This gap is important, as adolescents learning to identify the influence of their own thoughts can combat external peer influences (Jankowski, 2024). The focus of these interventions will be on three key areas: the role of early intervention and parental guidance (Do & Telzer, 2024; Wood et al., 2004), the contribution of peers (Goel & Malik, 2017; Kim et al. 2019), and the promotion of effective metacognitive strategies (Jankowski, 2024).

Parental Support In Early Years and Adolescence

The family unit is the first influence on the attitudes and behaviors of adolescents, thus playing a pivotal role in development (Do & Telzer, 2024). Behaviors exhibited by parents mold the decision making of adolescents from early years through young adulthood (Do & Telzer, 2024; Wood et al., 2004).

1.1 Influence of Parents in the Early Years

Per the American Academy of Pediatrics, early years encompasses children before birth through age eight (Early Childhood, n.d.). Even as young as four years old, children are subject to the pressures of peer influence (Haun & Tomasello, 2011). At the same time, the parental figure or guardian in a child's life plays a major role in which attitudes they adopt in their early years (Wood et al., 2004). Encouraging communication between parents and young children regarding risky behaviors could significantly drive their attitudes in one direction or another (Wood et al., 2004). Parental awareness of the impacts of risky behaviors on a developing child are vital to designing early interventions that could deter them from engagement. Constant noise in their environment, including that of peers and popular media, requires the steady foundation of an engaged parental figure in order to develop healthy attitudes toward risk-taking behaviors

(Wood et al., 2004). Having a steadfast environment starting in a child's early years promotes confidence in decision making (Do & Telzer, 2024). In such a formative period of development, observing and communicating definitive attitudes towards risky behaviors will guide a child to be able to look at the consequences of an action on themselves rather than their social status (Wood et al., 2004).

1.2 Impact of Parental Guidance on Adolescent Peer Pressure

Adolescence is a period of time characterized by the exploration of social influences (Giletta et al., 2021; Powers et al., 2022; Steinberg & Monahan, 2007). While the role of parental engagement is pivotal in early years, it still plays an evident role throughout adolescence (Do & Telzer, 2024; Wood et al., 2004). As a child's source of opinions and attitudes shifts from parental figures to peers, it is important that a steady foundation for making responsible decisions is being supported (Steinberg & Monahan, 2007). In environments where the perception of peers is of heightened importance, such as school and extracurricular activities, proper regulation of risk-taking behaviors must be an established skill (Goel & Malik, 2017).

Adolescents who are more involved in family activities are less likely to engage in risky behaviors (Goel & Malik, 2017). In a deficit or absence of family involvement, an adolescent will look to the peers in their social circle to fill the gap in guidance and support (Goel & Malik, 2017). Insufficient communication and a lack of quality time between children and parents hinder the mental and emotional growth necessary for children to confidently make responsible decisions when faced with external influences. (Steinberg & Monahan, 2007; Wood et al., 2004).

1.3 Importance of Parent Engagement During Adolescence

A multitude of parental factors influence how adolescents perceive the world around them, including nurturance, monitoring, and the values that parents associate with specific behaviors (Wood et al., 2004). Parental nurturance is defined by behaviors that demonstrate care and acceptance to a child (Wood et al., 2004). Parental monitoring is the extent to which parents attempt to control the actions of their children (Wood et al., 2004). A parent's healthy awareness of the people and places a child is engaging with encourages conversation about social influences (Wood et al., 2004). A study conducted by the Department of Psychology and Neuroscience at the University of North Carolina Chapel Hill sought to understand the impact of parents' opinions throughout childhood years (Do & Telzer, 2024). Results indicated that adolescents were significantly interested in the attitudes of their parents towards everyday externalizing behaviors (Do & Telzer, 2024). When the opportunity to see or skip the attitudes of their parents or peers were equally expensive, participants equally chose both (Do & Telzer, 2024). The results conclude that the value of learning parents' attitudes during adolescence is likely to predict differences in adopting positive peer influences later in life (Do & Telzer, 2024). The results were consistent among all age groups of the study, suggesting age does not play a significant factor (Do & Telzer, 2024). Therefore, throughout adolescence, children and teens are influenced by what their parents believe, impacting their perception of social situations. The observance of approval or disapproval toward externalizing behaviors could be a cause of adolescents adopting similar attitudes throughout their life span (Do & Telzer, 2024; Wood et al., 2004).

There is a distinct interplay between familial and peer influence (Steinberg & Monahan, 2007; Wood et al., 2004). Throughout childhood, social reinforcement and punishment, as well

as behavioral interactions, establish a foundation of overt and implicit learning that stem from their relationship with relevant family and peers (Wood et al., 2004). The guidance of parental figures in developing the attitudes of youth increases awareness of peer pressure in influencing decision making (Wood et al., 2004). Being able to notice it is the first step in an adolescent directing their own choices without relying on the attitudes of their peers (Do & Telzer, 2024). Furthermore, encouraging positive engagement in the home environment can help lower involvement in risky behaviors when an adolescent is in a peer setting (Goel & Malik, 2017). The time parents and children spend together increases awareness about situations in the child's life and subsequently facilitates healthy communication about them (Goel & Malik, 2017).

Peer-Influence

2.1 Impact of Peer-Influence on Early Years

In a study involving 24 children, 18 chose to give an answer to a question that they knew was incorrect when three of their peers all gave the same wrong response. (Haun & Tomasello, 2011). Therefore, even in their early years children are likely to experience conformity to relevant social groups (Haun & Tomasello, 2011). The response to social groups at such an early age suggests that conformity to peer-pressure could be attributed to human nature.

2.2 Impact of Peer-Influence on Adolescent Risk-Taking

In order to achieve a sense of belonging among their peers, adolescents often feel pressured to engage in risk-taking behaviors (Powers et al., 2022). A study from the Indian Journal of Health and Wellbeing reported a significant, positive relationship between peer involvement and risky behavior (Goel & Malik, 2017). The results suggested that more involvement with peer groups heightens the desire to engage in these actions (Goel & Malik, 2017). Another article sought to identify the causes of gambling initiation among adolescents,

and in their prospective study, 160 of the 440 non-gambling participants had begun gambling a year later (Parrado-González et al., 2023). Susceptibility to peer pressure was one of three significant factors contributing to gambling initiation (Parrado-González et al., 2023). The findings highlight how peer dynamics can create an environment where adolescents feel compelled to conform, even when it involves high-risk activities.

2.3 Decreasing Susceptibility to Peer-Influence

A study done on binge drinking and binge eating in adolescents found that the risk-taking behavior of binge eating was linked to peer-pressure through emotional need frustration and poor coping mechanisms (Inguglia et al., 2019). Therefore, the researchers promote interventions that help young people develop effective coping skills so that they can better handle the pressure that peers put on them to make poor decisions (Inguglia et al., 2019). Another study also highlighted the connection between emotions and susceptibility to peer-pressure (Langhinrichsen-Rohling et al., 2004). A survey of approximately 1,800 high school students found a statistically significant link between emotional issues, such as depression and suicidal thoughts, and an increased likelihood of gambling, especially when peers and parents also modeled gambling behaviors (Langhinrichsen-Rohling et al., 2004). Both of these studies emphasize the importance of addressing emotional vulnerabilities when seeking to reduce the impact of negative peer-influence on the decision making process of adolescents.

2.4 Leveraging Peer-Influence

The same prospective study discussed earlier found that the odds of initiating gambling were 55% lower for teens who perceived high levels of peer gambling compared to those who

did not (Parrado-González et al., 2023). If recognizing how gambling negatively affects their peers discourages adolescents from participating, then one could argue that peer-influence doesn't have to be bad if leveraged correctly. When designing interventions, peer influence can be used in a positive light to discourage adolescents from making poor and risky decisions (Parrado-González et al., 2023). The concept that peer pressure doesn't always need to be seen as negative is further proven by a study done on 89 preschool-aged children, which indicated that a child is likely to make choices that reflect those of their peers, even if that option is considered to be the less desirable to them (Kim at el., 2019). Evidence showed that children who initially picked the unhealthy food choice switched to a healthy choice in 29% of the trials (Kim at el., 2019). It's general knowledge that a child would rather eat sweets than some broccoli, yet many of the children chose the healthier option after seeing their peers choose it. If peer pressure can encourage healthier choices in children, similar strategies could be applied to adolescents to encourage decisions that will not harm them.

Metacognitive Development During Adolescence

During the transition between early years and adolescence, metacognitive skills play an increasingly important role (Belte at el., 2024; Chidley at el., 2025; Jankowski, 2024). Metacognition is defined by the ability of an individual to think about and evaluate their own thoughts based on preexisting beliefs and knowledge (Belte at el., 2024; Chidley at el., 2025). The development of metacognitive strategies during adolescence plays a critical role in learning, decision making, and responding to social influences (Jankowski, 2024). Specifically, targeted interventions can focus on utilizing an adolescent's relevant relationships to promote these skills.

3.1. The Importance of Metacognitive Skills in Adolescence

The period of high brain plasticity present in adolescence is the optimal window to develop effective, long-term metacognitive skills (Chidley at el., 2025). Utilizing metacognitive skills allows an individual to regulate their focus and attention, enabling them to perform executive functions according to goal-relevant information (Chidley at el., 2025). Executive functions are higher order cognitive strategies that direct goal-oriented behavior through working memory, flexibility in moving between tasks, and overriding prepotent thought using inhibition (Belte at el., 2024). The simultaneous use of metacognition and executive functioning starts at the beginning of adolescence (Belte at el., 2024; Chidley at el., 2025). By ten years of age, adolescents strongly employ these skills to strategize ways to complete tasks (Chidley at el., 2025).

3.2. Metacognition in Relation to Peer Influence

Metacognitive development in adolescence allows youth to adapt their skills for controlling cognition in a way that is relevant to their social environment (Chidley at el., 2025). The decisions adolescents make are linked to understanding the impact of their own thoughts (Belte at el., 2024; Chidley at el., 2025; Jankowski, 2024). What they have been taught about a relevant topic, as well as to what extent they were taught to evaluate their ideas of that topic based on preexisting knowledge and beliefs, establish a foundation for their response to peer pressures (Chidley at el., 2025). Adolescents with strong metacognitive processes can utilize their knowledge to plan their learning and evaluate an outcome (Belte at el., 2024; MIT Teaching & Learning Lab, n.d.). When faced with peer influences, these strategies will promote effective decision making against risky behaviors.

3.3. Environmental Influences on Adolescent Metacognition

How adolescents perceive their learning and thoughts stem from major environmental influences relevant to their life (Chidley at el., 2025; Jankowski, 2024). In their stage of development, schooling has a particular relevance in each of their social circles. Teaching metacognitive skills in educational settings promotes the development of higher order thinking (Weinberger, 2024). Adopting approaches to teaching where there isn't a single "correct answer" allows students to focus on gathering information to establish their own interpretations (Weinberger, 2024). Furthermore, utilizing "design thinking", which emphasizes the role teachers play in designing learning experiences, also redefines how students gain and perceive their knowledge (Weinberger, 2024). A study conducted by the Israel Science Foundation aimed to introduce metacognitive strategies to teachers and explore how they later educated their students on the same topics (Weinberger, 2024). Prior to the study, many educators contested to implementing metacognition into their teachings, claiming it was "beyond their understanding" (Weinberger, 2024). The phases of the study were therefore designed to introduce the main concepts of metacognition and provide lesson plans that integrate its components (Weinberger, 2024). These metacognitive skills were then taught to students, allowing them to attend to the cognitive processes they used in their studies and helping them apply their skills to different settings in the future (Weinberger, 2024). Despite having minimal knowledge on metacognition, educating teachers on its effectiveness caused them to later implement it into their lesson plans (Weinberger, 2024). In doing so, students were prompted to think critically about the narratives they build (Weinberger, 2024).

It should also be noted that the social and emotional well-being of a teacher has a direct influence on how adolescents function, as well as what they perceive to be healthy social

environments (Jankowski, 2024). Emotionally stable classrooms foster increased engagement with learning (Jankowski, 2024) and subsequently, school involvement is associated with decreased participation in risky behaviors (Goel & Malik, 2017). Social-emotional learning in schools promotes self-management, social awareness, relationship skills, and responsible decision making, among other things (Jankowski, 2024). The environment where an adolescent receives their education plays a significant role in how they engage with their peers both in and out of the classroom (Jankowski, 2024). The way they evaluate a situation using their own knowledge and cognition is influenced by what ways of thinking were promoted in school (Jankowski, 2024).

The co-relationship between schools and nonprofits could be particularly influential in educating adolescents on specific social issues within their community. Attributing metacognitive skills that are fostered in the classroom to relevant pressures or stigmas allows adolescents to develop strategies to combat them (Chidley at el., 2025). By engaging students in opportunities to self-reflect and critically think, educators and community partners can guide them in assessing social expectations and peer dynamics (Chidley at el., 2025; Jankowski, 2024).

It is important to note that the extent to which metacognitive strategies are reinforced within the home can either advance or deter their utilization (Goel & Malik, 2017; Wood et al., 2004). Collaboration between parents, educators, and community partners prevents contradictory information from being presented to adolescents, promoting the learning of metacognitive strategies at a faster, more permanent rate.

Conclusion

Increasing research on factors that impact an adolescent's response to peer influence highlights the need for effective intervention. Within early years and adolescence, awareness and

facilitated communication between parents and children influences their attitudes toward risk-taking behaviors (Wood et al., 2004). Specifically, a young child's perception of what externalizing behaviors their parents approve or disapprove of influences the adoption of similar attitudes later in life (Do & Telzer, 2024; Wood et al., 2004). A deficiency in parental monitoring or communication results in a lack of healthy mechanisms toward combating risky behaviors and poor decision making (Wood et al., 2004). Furthermore, adolescents are more likely to engage in risky behaviors when influenced by peers (Goel & Malik, 2017; Parrado-González et al., 2023; Powers et al., 2022). This tendency to conform is reinforced by emotional vulnerabilities and poor coping mechanisms, which increase their susceptibility to negative peer pressure (Inguglia et al., 2019; Langhinrichsen-Rohling et al., 2004). The social-emotional environments an adolescent is subject to also dictates the development of effective metacognitive skills (Jankowski, 2024). If those spaces lack stability, their engagement with learning, and consequently skills such as social awareness and responsible decision making, will be negatively impacted (Jankowski, 2024).

Multiple effective interventions could be implemented to challenge an adolescent's susceptibility to peer influence. Throughout development, promoting proper engagement between parents and adolescents fosters their ability to remove themselves from the social context of a situation and determine the consequences of risk-taking behaviors before acting upon them (Do & Telzer, 2024; Goel & Malik, 2017). One possible way to do so is through the development of an app catered to parents and adolescents. The app could provide daily check-in prompts that initiate conversations between parents and their children. Looking at peer influence, studies show that children may adopt healthier behaviors when they see their peers doing the same, highlighting how it can be harnessed positively (Kim et al., 2019). Adolescents are also

less likely to initiate risky behaviors if they see the negative influence it has on their peers' lives (Parrado-González et al., 2023). Interventions could also incorporate peer-led workshops where adolescents role-play scenarios and practice how to resist negative peer pressure in supportive group settings. The foundation of all of the proposed interventions should stem from satisfactory development of metacognitive skills. Interweaving metacognitive strategies into adolescents' daily lives and relationships fosters their ability to remove external emotions and motivations from risky behaviors (Chidley at el., 2025). Thus, they can confidently make decisions that support their mental and physical wellbeing (Chidley at el., 2025). School assigned journal entries that require students to analyze their peer influences and decision making is one pathway for promoting metacognitive development. Lastly, parents and youth workers both play a pivotal role in encouraging children to make thoughtful decisions based on their preexisting knowledge and beliefs (Belte at el., 2024; Chidley at el., 2025). Collaboration between educators, parents, and nonprofits/community partners through workshops and in-school presentations could educate adolescents on relevant social issues and provide healthy ways of engaging with them.

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