Abstract. The role of fathers in the modern households has significantly changed, prompting scholarly interest in the uniqueness of paternal influences. The early childhood development literature is thereby no longer limited to focus solely on the effects of maternal behaviors. In particular, father involvement is regarded to have distinct mechanisms of influence on children's early social-emotional development that relatively independent of motherhood. However, there is not even a consistent definition of father involvement yet, and the current literature has received little attention within the pathways of how its influence on early childhood development. To bridge this gap, this paper aims to explore aspects of father involvement and the mechanisms of its impact on children's social-emotional behavior. Grounded on attachment theory and activation relationship theory, this paper presents that father involvement can build high-quality father-child attachments both through sensitive affection engagement and the challenges and activations that common in physical play, thus having a unique impact on children's social-emotional behavior that is different from that of their mothers. This paper can serve as an inspiration for future directions in father involvement research and has potential practical implications for policymakers and families with newborns. There remains ambiguities and gaps in the research on the parenting literature, such as there are very few studies have yet considered the dynamic and reciprocal nature of the father-child relationship, which need to be addressed by future research.

Keywords: Father involvement; Socio-emotional development; Father-child attachment; Father-child play.

1. Introduction

Father involvement is a key determinant of family well-being and child development. In particular, socioeconomic changes are imperceptibly affecting the family structure (for example, more and more women enter the workplace), prompting people to further consider the role of father [1]. A strong body of literature supported that father involvement positively influence on early childhood outcomes [2]. Yet, as Lamb's [3] words, “fathers are forgotten contributors to child development”, although the importance of fathering research has been recognized [4], there still remains several gaps in current fatherhood research. For example, how to conceptualize father involvement is still being hot debated, and the pathways by which different aspects of father involvement affect various functions of children remain unclear. This has led to a significant neglect of the unique and vital role that fathers play in children's development.

Social-emotional skill is regard as an important competency which is critically sensitive during early childhood, including emotion and behavior management, as well as self-regulation, social information processing, and emotional understanding [4]. In other words, social-emotional development in early childhood provides an important foundation for future learning skills, socialization, and well-being. Driven from the inspiration of attachment theory, numerous experiments have demonstrated that maternal behavior can significantly predict the development of children's socio-emotional development [5], while relatively few literatures have focused on the role of the father. Recently, some studies have argued that the attachment of fathers and mothers to children should be relatively independent, specifically, their essential characteristics and functions are different [6]. For example, fathers more likely interact with their children in a more playful and physically stimulating style than mother and will act as playmates rather than caregivers [2], thus
being able to provide children with more opportunities to learn social skills as well as emotional support [6]. Therefore, father involvement may be a unique and critical influencing factor to the children's social-emotional development. More study is needed to fill in the gaps in the mechanisms of the relationship between the two.

To better understand the specific aspects of the father involvement and the possible mechanisms of relationship with child socio-emotional development, this paper will first discuss the definition of father involvement, as it is a complex concept involving various dimensions. Secondly, the possible pathway that how father involvement affects the children's social-emotional development will be discussed based on the attachment theory and activation relationship Theory. Compared with the caregiving of the mother, the father is considered to involve more on play activities with their child as the earliest playmate. Therefore, this paper will special focus on the potential impact mechanism of different types of father-child play on children's socio-emotional development. Finally, limitations and future research directions will be summarized in the last section.

2. Conceptualizing Father Involvement

Despite the extensive literature on the concept of paternal involvement, it is such a broad concept involving various dimensions thus difficult to find a consistent definition. Through the development of various psychology frameworks, the concept of father involvement has been able to move beyond the traditional distinction between absent and present fathering. The work of Lamb et al. [3] is the most influential models of father involvement. It explores the variability of this relationship: (a) engagement: direct interaction (e.g., play, caregiving); (b) accessibility: the availability of fathers’ responses to children's needs (c) responsibility: indirect interactions of participation in decisions about childcare (e.g., deciding a school, choosing cloth, etc.).

While this model is widely recognized and has expanded the understanding about the mechanicians of father involvement to child development, however, this theory has been pointed out to have significant limitations. First, Pleck [2] argued that it overfocused on the directly interaction with their children (engagement), while ignoring the dimensions of accessibility and responsibility. Further, this also fails to capture salient components of fathers’ emotional and cognitive involvement [5]. Therefore, to further clarify the quality of father involvement, Pleck [2] subdivides the definition of "engagement" into positive engagement (direct interactions with the child), and warmth and responsiveness (parenting). This is in line with Palkovitz [5], who argues that caregiving and play are qualitatively different aspects of the father in terms of the father's direct involvement and therefore need to be examined separately. Based on this, some studies also distinguish father involvement as “routine” childcare and more “developmental” teaching and playing activities [5]. Nevertheless, research exploring how fathers are "on duty" available (accessibility) and how they as managerial roles related to childcare (responsibility) is still lacking. This limits the concept of paternal behavior to the stereotype of the father as a peripheral “helper” to the mother's parenting, leading to biased father involvement studies [2].

Secondly, the complex multiple dimensions of father involvement have not been aggregated into an integrated conceptual framework that can provide a deeper understanding of what fathering is and how it can affect children's consequences [1]. Based upon these limitations, Cabrera et al. [1] suggested an "expanded model of the dynamics of paternal behavior and influence on children" (p. 342). Based on this model, the father-child relationship may be influenced by microsystem (e.g., individual's characteristic, family members), mesosystem (e.g., parent-school connection), exosystem (e.g., SES), macrosystem (culture, political context) and chronosystem (e.g., divorce) factors [1]. On top of the integration of multiple contextual determinants of father involvement, the model also conceptualizes the dynamic and reciprocal relationship between father and child instead of trying to find an overarching theory of father involvement, providing inspiration for fatherhood research [5].

Although this integrative father involvement model proposed by Cabrera et al. [1] has led to an awareness that father involvement is embedded in complex contexts, there are significant challenges
in developing a model of father involvement. For example, when discussing the relationship between fathers and children, both variables, father involvement and child development, are dynamic variables that are constantly evolving [5]. Also, the form and content and quality of father involvement are varied, which may have different implications in different contexts [1]. Therefore, the construction of the concept of father involvement and the development of fatherhood theory still has a long way to go. This paper will focus on direct father involvement with children in two-parent families, particularly play, as this is considered the most common and unique form of father-child interaction.

3. Fathers’ Involvement and Children’s Socioemotional Development

Recent years, scholars have successively pointed out that past fathering research has improperly over focused on the frequency of father's parenting behavior, while neglected to capture the components of cognitive and affective involvement, possible context factors, as well as the dynamic, conditional, bidirectional relationship between father, mother, and their child [5]. Specifically, the construct of "father involvement" proposed by Lamb [3] was relatively "content-free", in other words, he tacitly assumed that this engagement is positive and enjoyable, yet it did not consider the negative parenting behavior, such as child abuse, as an extreme example. Indeed, more frequent father involvement does not necessarily predict better child developmental outcomes. For instance, one early research pointed out that the frequency of interactions with nonresident fathers were not predicted children’s socioemotional abilities [4]. Moreover, the results of a recent research showed that more fathers’ involvement in caregiving positively related with children's internalizing behaviors, which was speculated that father's involvement in caregiving may inclined to use the style of 'over control' directiveness, or father more involved in child's caregiving may be due to some family problems, such as maternal depression [4]. These reveals that father involvement research cannot only consider the time it takes. Some literature stated that a single focus on quantity is not sufficient when discussing the relationship with father involvement and children’s developmental outputs [5]. Therefore, in addition to focusing on the frequency or quantity of father involvement, it should also discuss exactly what constitutes father's’ ‘effective’ type of involvement [5].

3.1 Father-Child Attachment and Children’s Socioemotional Development

To explore “effective” father involvement, Bowlby's attachment theory [7] suggests that positive and meaningful infant-parent interactions lead children to develop a positive 'internal working model' by providing an 'inner feeling of security' as they explore the world, thereby establishing 'secure attachment relationships'. Bowlby explained that this is because infants construct their relationship expectations based on their past experiences with attachment figures. Consequently, internal working models work as a "cognitive prototype" [5], helping children to shape their expectations of others as well as a sense of self, thereby fostering social and emotional adjustment. Multiple studies have found that children with a higher sense of security may be more popular, which comes from higher social skills, self-esteem, better emotional regulation ability, and lower internalizing and externalizing problem behavior [8]. Conversely, disrupted caregiving and insecure attachment are thought to elevate risk to the child's future psychopathology [5]. Thus, father involvement may positively contribute to children's socioemotional competence through the establishment of high-quality father-child attachments.

3.2 Activation Relationship and Children’s Socioemotional Development

Although attachment theory was widely recognized, it focused primarily on the attachment to the mother while did not apply to father. Specifically, mother-child attachment has predominated in past studies, but failed to validate the role of father involvement on children's social-emotional competence [9]. This may be since mothers are generally expected to give more daily care during infancy, or people simply default to child-father attachment as same as mothers’ [9]. This leads to people remaining poorly understanding how fathers build attachment relationships with children.
Consequently, the unique mechanisms of the father-child attachment relationship have begun to receive attention from many studies. Bowlby [7] suggested that the exploration and attachments as to different systems. Among them, fathers may play a vital role in shaping the child's psychological security via play on the exploratory side. Derived from this, Paquette [10] proposes a separated theory to explain the father-child attachment: the activation relationship theory, which suggests that building psychological security not only through comfort, but also from the exploration of the outside world. This theory explains primarily that the bond between the child and the father comes from two directions: “stimulation and discipline” [9]. Specifically, children's development of attachment and self-awareness with their fathers is more about encouraging children to explore the unknown world (stimulation) while setting certain constraints to ensure their safety (discipline). The results of experiment of Dumont and Paquette [9] supported that father-to-child activation had significant positive impact on children's socio-emotional outcomes. Although this theory still needs to be verified by more empirical studies, it broadens the perspective of the father-child attachment understanding.

3.3 Father-Child Play and Children’s Socioemotional Development

One critical component of the quality of father involvement is the content of the activities in which fathers are involved. Numerous studies have explored the differences in fathers' and mothers' involvement in early childhood parenting. One consistent finding is that mothers may be more engaged in daily care, while fathers tend to be more engaged in play activities [10]. Grossmann et al. [8] noted that mothers play as "stress regulators" while fathers function as "challenging but reassuring play partners." This may lead to fathers' and mothers' involvement affecting different aspects of children.

Indeed, emerging literature finds that play activities are a prominent feature of the father-child relationship [10]. Fatherhood studies in particular have long emphasized the importance of play with physical stimulation. For instance, an experiment conducted by Fuertes et al. [11] found that father involvement in play predicted attachment quality at 12 months, while the association for involvement in caregiving was not significant. In sum, these efforts suggest that while engagement in caregiving activities may be particularly important in mother-child attachment, while interaction in play activities also has a non-negligible impact on early father-child relationship development. Moreover, some studies have supported that fathers' involvement in plays with their children have positive effects on children's ability of self-regulation, socialization, and ability to make friends [12]. Therefore, there is a need to further explore the relationship of fathers' involvement in play and children's socio-emotional development.

3.3.1 Sensitive play: Affective and cognitive involvement

As mentioned above, analysis based on attachment theory suggests that parental caregiving sensitivity can provide secure attachment and thus promote the development of children's socio-emotional competencies. Sensitivity is thought to be applicable in play with fathers as well, which may be related to the affective and cognitive involvement missing in the father involvement study. Yet in addition to focusing on the quality of emotion the father-child relationship, how father's and children deal with emotional displays is critical for children's socioemotional learning [12]. The ability to read emotional signals from playmates and enable to send clear signals are the key to successful maintenance of play activities [11]. Children thus learn to be aware of other people's emotions in the context of play and regulate and control one's own emotions [8].

Similarly, Fonagy et al. [13] proposed the concept of "reflective functioning (RF)" to further explore how parenting behaviors affect children's socioemotional abilities. RF is described as a parent's ability to capture and understand a child's mental state (emotions, needs, etc.), the adjusting the interaction with the child by reflecting on the child's inner experience [13]. This is believed to be the foundation for developing child’s sense of security as well as its other socioemotional capabilities. Slade emphasized that unreflective, unresponsive, dysfunctional interactions can disrupt a child's social development. Some studies have pointed out that fathers' positive comfort, response, and acceptance of their children's negative emotions, were positively predicted their children's future
relationships with peers. For example, one experiment [11] suggested that fathers' comfort and acceptance for their children's sadness and anger at age five predicted their children's social skills three years later. Child knowledge of and use of display rules, a form of emotional regulation, is linked with higher levels of peer acceptance [11]. Therefore, the father's RF and ability to affect management and emotional regulation, as well as the "emotion lessons" in playing with the child, are able to contribute on the child's socio-emotional outcomes.

Also, on top of the traditional attachment theory, the cognitive social learning paradigm states that children should be able to develop social skills through face-to-face interactions with their fathers, thereby laying the foundation for later socializing with peers [12]. Indeed, as a playmate or early caregiver, the relationship, and patterns of play can have a profound influence on the child's socioemotional developments [11]. Additionally, Social Learning Theory also emphasizes the importance of play for acquiring skills, a key one of which is the "play as practice" approach, primarily to help parents shape developmental skills for their young children, such as communication, language, self-regulation, and other socio-emotional skills required for functioning and well-being [11]. Therefore, fathers with sensitivity provide more opportunities for children to acquire early social-emotional skills as they play with them.

3.3.2 Challenging play: Exploration and challenges

Activation theory broadens the mechanism for the play relationship between father and child, focusing on exploration and challenges. Unlike the mother-child attachment relationship, Paquette [10] emphasizes the importance of fathers in stimulating and temporarily destabilizing their children during play, thus creating a father-child activated relationship. This would be more unique for the father-child relationship because men seem to be physically more aggressive than women, thereby fathers would be more inclined to have physical interact or rough, and tumbles play with children [10]. Such interactions can be more challenging and stimulating. Also, fathers are more likely to encourage their children to actively explore the unfamiliar [9]. Thus, these interactions can provide fathers with additional opportunities to help their children deal with their emotions in a socially acceptable form. This is supported by several empirical studies: children who are under-stimulated by their fathers during play tend to be more unconfident and ignored by their peers [9]. Therefore, research on the mechanisms by which father involvement affects children's social-emotional competence should think beyond sensitivities to exploratory and challenging aspects.

Specifically, different styles of play can help children foster their socioemotional competence [12]. Aside from the "stimulation and discipline", it is also critical to understand how different forms of play can influence children's socio-emotional development. One study conducted by Robinson et al. [14] revealed that playing with a certain type of physical play can help children develop their social-emotional skills. For instance, rough-and-tumble play was found significantly predicting the children's attachment security and self-regulation [12]. It has been defined as physical play involving multiple activities such as wrestling, chasing, and tumbling, with playful facial expressions, laughter, smiles and other playful cues [8]. This intense play can appear to be more aggressive on the surface, but one of the essential premises is that it is a mutually pleasurable process for all participants [14]. To maintain such relationships, participants need to learn to regulate each other's emotions and behaviors in intense contexts, and to adopt a common emotional frame of reference [14]. Father-child rough-and-tumble play has been shown in many studies to have a positive impact on children's social skills as well as the ability to encode and decode emotions [14]. Also, the quality of fathers' involvement in rough and tumble play predicts fewer emotional or behavioral problems in children [12]. However, not all physical play is valid, for example, research has found that unrestricted and permissive physical may lead children to believe aggressive and rough behavior is reasonable and acceptable. Additionally, the effect of this type of play was more pronounced for the father-son relationship, but for daughters, fathers would be less likely to adopt to this type of intense physical play [8]. In general, play need to be regulated and modulated by adult, the style of the father's involvement in play activities also affects the child's social outcomes.
4. Summary

In conclusion, this paper supports the importance of the quality of father involvement for children's development, especially for social-emotional development, and discusses the uniqueness of father involvement compared to mother's, which affects different aspects of children through different pathways. To further explore what kind of father involvement is effective and how it influences children's social-emotional development, this paper combines attachment theory and activation theory to explore the possible pathways. In terms of the types of activities participated, this paper focuses on the father-child play. Positive and sensitive interactions were found to provide children with an inner feeling of security and thereby build secure attachments. Further, challenge and exploration were found to be more prominent characteristics of fathers' interactions, with challenging or physical play stimulating children's sense of security and the acquisition of social-emotional competence. However, it requires adult regulation and intervention, which is consistent with the discipline emphasized by activation theory. These findings underscore the importance of father involvement in the development of children's early social-emotional competence, which has practical implications. For example, given the current growing number of child and adolescent psychological problems and notified incidents of school violence, policymakers can consider father involvement as one of the important family factors influencing children's social-emotional development in early family interventions. Alternatively, kindergartens or preschools can encourage engage fathers to interact in school programs.

The role of father involvement in child development has received increasing attention in recent decades. Nevertheless, there are still many limitations and gaps in current fatherhood research that need to be addressed. Firstly, inspired by father involvement expanded heuristic model, both father involvement and child development are dynamic developmental variables. In other words, the way and frequency of father involvement and the aspects and sensitivity of their influence on children's development may vary over time. Meanwhile, the bidirectional nature of the father-child relationship cannot be ignored. There are very few studies that focus on the developmental and reciprocal nature of father-child relationships. Second, while fathers' involvement in play is believed to have unique ways of influencing their children's social-emotional development, research on the peculiarities of father-son play has focused mainly on rough-and-tumble play. However, on the one hand, given the various types of play, it is necessary to further consider whether there are significant differences in parental involvement beyond the rough-and-tumble. On the other hand, most of the current research on father-child play classifies play into different specific types, but such categorical definitions are hardly sufficient for analysis of the father-child relationship. Therefore, future research could further consider defining play beyond the categorical form, for example, some scholars began to measure the quality of fathers' "playfulness". Finally, it's necessary to expand our understanding of "father involvement" further. For example, can women also become fathers? Specifically, are children raised by lesbian families or single mothers more likely to have problems with social-emotional development due to the absence of fathers or are they able to have the same level of output. In sum, there are substantial gaps and challenges in the research on father involvement, which need to be further refined by future research.

References


