

Parental mental health and children's social skills development: a study from an urban area of Indonesia

Hilda Meriyandah¹, Yuri Nurdiantami¹, Smarika Shresta¹, Maiko Shigeeda¹, and Tokie Anme^{2*}

¹ Graduate of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Japan

² Faculty of Medical Sciences, University of Tsukuba, Tsukuba, Japan

*Correspondence: Tokie Anme. Address: Faculty of Medical Sciences, University of Tsukuba, Tsukuba, Japan. Email: anmet@md.tsukuba.ac.jp

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ABSTRACT

Introduction: Children's social development is essential for adaptive behavior and successful interaction within the community. Parents play a central role in fostering children's social skills. However, parental psychological distress, including depression, anxiety, and stress, may hinder effective parent-child interactions. This study examined the association between parental mental health and the development of children's social skills.

Methods: A cross-sectional study was conducted in an urban area of Indonesia using purposive sampling method. The participants were parents of kindergarten children, and all kindergartens in the study area were invited to participate. Parental mental health was self-assessed using the Depression Anxiety Stress Scale-21 (DASS-21), while children's social skills were evaluated by 15 trained teachers using the Social Skills Scale-24 (SSS-24), which covers assertion, self-control, and cooperation. Regression analysis and multivariate analysis of variance (MANOVA) were performed on the data from 343 parent-child dyads.

Results: Higher parental stress was negatively associated with children's assertion ($\beta = -0.119$, $p = 0.042$) and self-control ($\beta = -0.139$, $p = 0.040$). Lower parental anxiety was associated with higher levels of children's self-control ($\beta = -0.144$, $p = 0.032$) and cooperation ($\beta = -0.175$, $p = 0.010$). MANOVA demonstrated that the combined effects of parental depression, anxiety, and stress were significantly associated with children's assertion ($F = 3.72$, $p = 0.025$) and their overall social skills ($F = 3.12$, $p = 0.045$).

Conclusions: Greater parental psychological distress is associated with poorer social development in early childhood. Promoting parental mental health may support optimal social skills development among young children.

Keywords: child social development; DASS-21; parental mental health; preschool children; psychological distress

Introduction

The early childhood development stage is known as the "golden period" due to its significance for children's growth and development, which usually occurs at 0 – 6 years of age (Maleki *et al.*, 2019; Untung *et al.*, 2023) and includes several aspects of development, namely physical, language, cognitive, emotional, and social (Kemendikbud, 2020). All these aspects are interrelated and have specific stages at each age, requiring appropriate stimulation for optimal development (Malik and Marwaha, 2022). Among the many aspects of early

child development, social skills are considered important and have long-term effects on children's future adjustment and well-being.

Social skills are defined as behavioral competencies that enable children to interact appropriately with others in society (Takahashi *et al.*, 2015) and are considered an important component of children's broader social well-being. During the preschool age, social skills, which consist of children's assertion, self-control, and cooperation abilities, develop dominantly, and parents significantly contribute to preschoolers' value formation



and the development of adaptable self-regulation (Li *et al.*, 2022; Malik and Marwaha, 2022). Previous research has also emphasized that children with better social skills grow into individuals with better emotional abilities, are more compliant with rules, have greater social flexibility, and are more active in participating in groups (National Research Council (US) and Institute of Medicine (US) Committee on Integrating the Science of Early Childhood Development, 2000; Solang *et al.*, 2024). Additional research indicates that children with elevated social skills tend to exhibit superior academic success, whereas those with diminished social skills face an increased likelihood of encountering academic challenges (Organisation for Economic Co-operation and Development, 2021; Ruffini, Marzocchi and Pecini, 2021; Asyari and Astuti, 2022). Social skills determine not only societal life but also academic life.

Recent studies on children's socio-emotional development have also been reported in several countries. A large population-based study conducted in Sweden found that approximately 16% of preschoolers had social-emotional problems, which were more prevalent among boys than girls (Vaezghasemi *et al.*, 2023). Another study of the urban population in China indicated that 23.6% of preschool children were at risk for social-emotional problems, including problems with self-regulation and peer relationships (Xu *et al.*, 2024). Similarly, a national survey in Indonesia emphasized that approximately 11.4% of Indonesian children aged 3–6 years show developmental concerns in socio-emotional domains, including difficulties in social interaction, emotional regulation, and adaptive behavior (Badan Penelitian dan Pengembangan Kesehatan, 2018). Additional research in Indonesia has also highlighted concerns that many preschool children are shy, have difficulty controlling their emotions, prefer to be alone, have difficulty initiating interactions with friends, and are less concerned with others (Oktari, Nurlaili and Syarifin, 2019). A previous study at the research site also indicated low scores for cooperation skills among children, which implies that some children have difficulty cooperating with peers (Agil, Agustina and Bunga, 2023). These phenomena may escalate into more severe and persistent issues if not addressed promptly.

Many previous studies have investigated the determining factors of children's social skills and emphasized that they are associated with internal and external factors, including age, gender, familial context, parent-child intimacy, parenting approach, and parental mental health (Ip *et al.*, 2018). All these factors are around the children and shape their social skills. In the current study, parental mental health was chosen as an independent variable that would be examined in terms of its relationship with the development of children's social skills in Indonesia.

Parental mental health is an increasingly emphasized issue in child development research, especially depression, anxiety, and stress, which are the most prevalent mental health problems globally (WHO, 2025). Parents' mental health is significantly linked to the quality of parenting delivered to children (Edwards and Maguire, 2012; Vallotton *et al.*, 2016). This mechanism can be explained by social learning theory, which emphasizes that parental behavior influences children's social skills, as children replicate their parents' actions due to their keen observation, imitation, and immature judgment abilities (Zhu, 2021). When parents display stress-induced behaviors, such as anger, disengagement, or inconsistency, children may internalize and replicate these patterns. Furthermore, for preschool-aged children with limited learning abilities, parental examples become one of the primary learning experiences they follow (Zhu, 2021). An initial study at the research site revealed that the prevalence of mental health concerns among parents experiencing mild stress disorders and mild anxiety was 7% and 10%, respectively (Agil, Agustina and Bunga, 2023).

Although previous studies have explored the relationship between parental mental health and children's socio-emotional development, limited research has been conducted in low-middle income countries, specifically studies on social skill domains. Therefore, the present study aims to examine the relationship between parental psychological distress—specifically, depression, anxiety, and stress—and preschool children's social skills, including assertion, cooperation, and self-control, among kindergarten children in an urban area of Indonesia.

Materials and Methods

Study Design and Settings

The current study utilized a cross-sectional design conducted in 2023 among all kindergartens in Sepanjang Jaya (SJ) ward, an urban area of Indonesia, a highly populated residential neighborhood that is characterized by an urban population (Nurrahim, 2024) and has a diverse population from many backgrounds, which may be sufficient to represent the Indonesian community. Additionally, this area's kindergartens are designed in the manner that is typical of Indonesian kindergartens, which are private, religion-based schools, and the school day is from 7.30 to 11.30 (Kemendikdasmen, 2026). Moreover, a pilot study has been conducted in this region, and its findings can be translated into a community service program that can be implemented here (Agil, Agustina and Bunga, 2023). All nine kindergartens in the area were invited to participate to obtain a community-based sample of preschoolers and their parents living in the same urban environment.

Participants and Sampling Procedure

The participants in this study included preschoolers, their parents, and classroom teachers. The purposive sampling technique was employed with the following inclusion criteria: (1) preschoolers attending kindergartens in the SJ area; (2) preschoolers aged between 4 and 6 years; (3) the parents gave consent for themselves to participate and consent for their child's social skill to be assessed by the classroom teacher who was willing to join the training as a process of the study. A total of 371 dyads from the SJ Ward Early Childhood Education (PAUD) fulfilled the eligibility criteria for participation in this study. After receiving a comprehensive explanation of the research, the participants consented to complete a consent form and a questionnaire. Owing to the absence of demographic, mental health, or social skills data, 28 parent-child pairs were excluded, resulting in a total of 343 parent-child dyads in the study. Additionally, 15 teachers participated in assessing preschoolers' social skills.

Instrument

Parental Mental Health

The independent variable in this study was parental mental health, which is defined as depression, anxiety, and stress among parents, which can be a risk factor for child maltreatment (British Columbia, 2024). Parental mental health was measured using the Indonesian version of depression, Anxiety, and stress scale with 21 items (DASS), which has demonstrated excellent item reliability (0.99) and adequate person reliability (0.89), along with a Cronbach alpha KR-20 value of 0.91 (Ifdil *et al.*, 2020). The DASS-21 is an extensively utilized and validated tool for evaluating depression, anxiety, and stress among various groups, including parents (Lovibond and Lovibond, 1995; Yue *et al.*, 2018; Alsaif *et al.*, 2022). Every item was evaluated using a Likert scale of 4 points and classified as follows: 0 = not applicable, 1 = somewhat applicable, 2 = considerably applicable, and 3 = highly applicable. A higher cumulative score for each subscale implies more severe emotional problems experienced by parents.

Children's Social Skills

The dependent variable in this study was children's social skills, which are defined as learned behaviors based on social rules that enable children to interact appropriately with others in society (Takahashi *et al.*, 2015). In addition, the current study conceptualized social skills as three aspects: assertion, self-control, and cooperation. This justification is based on the Social Skills Rating System (SSRS), which was created in the United States and is recognized as the most extensive and prevalent rating scale that offers a fundamental framework for analyzing social behavior by assessing three primary subdomains: assertion, self-control, and

cooperation (Anme *et al.*, 2013; Maleki *et al.*, 2019; Li *et al.*, 2022). The social skills scale (SSS) with 24 items was developed to be culturally appropriate for Asian populations, primarily the Japanese population, with a good Cronbach's alpha range of 0.91 to 0.93. (Anme *et al.*, 2013) It was further adapted for other Asian countries, including Indonesia (Anme *et al.*, 2013; Zhu *et al.*, 2023; Meriyandah, Nurdiantami, Zhu, *et al.*, 2025; Shrestha *et al.*, 2026). The SSS-24 consists of three fundamental dimensions of social interaction: 1) Assertions (items 1–8) – the capability to articulate needs and opinions effectively; 2) Self-control (items 9–16) – the ability to manage emotions and behaviors in diverse contexts; and 3) Cooperation (items 17–24) – the proficiency to collaborate harmoniously with peers and adults. Teachers evaluated each item using a 3-point Likert scale: 0 = never, 1 = sometimes, and 2 = always (Anme *et al.*, 2013). The Indonesian version of the SSS-24 has been validated and exhibits strong reliability, evidenced by a Cronbach's alpha of 0.907 (Agil, Agustina and Bunga, 2023).

Data Collection Procedure

Prior to the study, the research team coordinated with school administrators to schedule meetings with the parents. During these meetings, all respondents were provided with a comprehensive explanation of the study before they agreed to participate in the research. This explanation covered everything from the aim of the study and all procedures to the study's advantages and the potential dangers that could arise during data collection. Respondents were advised that this data collection was voluntary, and they were also informed that there was no coercion; hence, they could withdraw their participation at any time. In addition, the researcher ensured that all data were handled anonymously, and only researchers with access to this information had ethical clearance.

After providing consent, parents completed the DASS and a demographic questionnaire that collected information on parental mental health and family characteristics. The questionnaires were completed at school immediately after the explanation session to ensure that the participants clearly understood the questions and procedures. Hereinafter, up to 15 classroom teachers were trained by the researcher to use the SSS to evaluate children's social skills based on their observations of children's typical behavior during classroom activities and peer interactions. The researcher presented a video of preschoolers collaborating on a task in groups, and the teachers were requested to assess the children's social skills by utilizing the SSS-24. Upon completing the form, a discussion of the responses ensued to synchronize the perceptions of the SSS assessment scale. The researcher provided additional

Table 1. Descriptive characteristics results of the participants (n = 343)

Variable	n	%
Parents' Age*	34.9±5.67 (M±SD)	
Acquaintance with Child		
Father	39	11.4
Mother	304	88.6
Parents' Education		
Elementary School	7	2.0
High School	124	36.2
University or higher	212	61.8
Household's Income		
< City Standard Salary (UMR)**	107	31.2
> City Standard Salary	236	68.8
Child's Age		
4 years old	36	10.5
5 years old	148	43.1
6 years old	159	46.4
Child's Sex		
Boy	162	47.2
Girl	181	52.8
Sibling		
Yes	280	81.6
No	63	18.4

* Continuous variables are described as mean ± standard deviation (M±SD).

**Rupiah 5.343.000 (around \$340)

video exercises for practice and assigned an "applicable" score for evaluation if the teacher's similarity checks were above 80% compared to the researcher's results.

Data analysis

Univariate, linear regression, and multivariate analyses were used to obtain systematic results. As a first step, a univariate analysis was performed to obtain descriptive statistics of the respondents' characteristics.

In the next step, linear regression analysis was performed to evaluate the association and direction between parental mental health variables—specifically depression, anxiety, and stress—and children's social skills, which include the three sub-scales.

Finally, a multivariate analysis was performed to investigate the relationship between multiple independent variables and the dependent variable. By performing multivariate analysis, the researchers expected to evaluate the interaction between depression, anxiety, and stress and their correlation with each domain of social skills.

Ethical consideration

Both the Indonesian Ethical Board, with the number STIKes Prima KEPK No. 243/EC/KEPK/STIKESPI/III/2023,

and also from Tsukuba University Japan Ethical Board, with the number EC No. 1657-1. All respondents were provided with a comprehensive explanation of the study before they agreed to participate. This explanation covered the research objective, procedure, and advantages of the study, as well as the potential dangers that could occur during the data collection process. Respondents were advised that this data collection was voluntary, and they were also informed that there was no coercion involved; hence, the participation of respondents could be drawn at any point. In addition, the researcher ensured that all of the data were handled in an anonymous manner, and only researchers who had access to this information under the ethical clearance.

Results

Descriptive results

The current study included 343 parents and their children as participants, and [table 1](#) shows the characteristics of the participants. The mean age of the parents was 34.9 ± 5.67 years, and most of the participants were mothers (88.6%).

The current study was conducted in an urban setting, where the backgrounds of the participants might be

Table 2. Regression results of parents' mental health and children's assertion* (n=343)

Variable**	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	SE	Beta		
Depression	-0.059	0.328	-0.011	-0.180	0.857
Anxiety	0.304	0.206	0.006	0.101	0.919
Stress	-0.722	0.413	-0.119	-0.746	0.042

*Adjusted for parents' age, parents' education, household income, child's age, child's gender, and sibling

** R²: 0.012 ± 2.831

Table 3. Regression results of parents' mental health and children's self-control* (n=343)

Variable**	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	SE	Beta		
Depression	-0.303	0.322	-0.057	-0.941	0.347
Anxiety	-0.434	0.202	-0.144	-0.152	0.032
Stress	-0.837	0.405	-0.139	-0.066	0.040

*Adjusted for parents' age, parents' education, household income, child's age, child's gender, and sibling

** R²: 0.021 ± 2.771

Table 4. Regression results of parents' mental health and children's cooperation* (n=343)

Variable**	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	SE	Beta		
Depression	-0.229	0.385	-0.037	-0.596	0.552
Anxiety	-0.625	0.241	-0.175	-20.590	0.010
Stress	-0.291	0.485	-0.041	-0.599	0.549

*Adjusted for parents' age, parents' education, household income, child's age, child's gender, and sibling

** R²: 0.023 ± 3.257

Table 5. Regression results of parents' mental health and children's total score of SSS* (n=343)

Variable**	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	SE	Beta		
Depression	-0.591	0.820	-0.044	-0.721	0.472
Anxiety	-10.362	0.514	-0.179	-20.651	0.008
Stress	-10.850	10.034	-0.121	-10.790	0.074

*Adjusted for parents' age, parents' education, household income, child's age, child's gender, and sibling

** R²: 0.023 ± 7.089

diverse. As for the educational level, many of the respondents graduated from higher educational level or university level (61.8%), followed by high school graduates (36.2.3%). The remaining participants graduated from elementary school (2.0%). Based on household income, the majority of participants (approximately 68.8% of respondents) had an income above or equal to the minimum wage of B City (approximately Rp 5.343.000 (\$340)), while 31.2% had an income below the minimum wage.

The characteristics of children in the current study are also shown in [Table 1](#). The majority of participants (46.4%) were 6 years old, followed by 5 (43.1%) and 4 (10.5%) years old. The gender distribution was relatively balanced, with 52.8% girls and 47.2% boys. Additionally, most children in the current study had siblings (81.6%).

Regression results

The regression analysis results indicated many significant relationships between parental mental health and children's social skill. [Table 2](#) shows that parental stress had a negative association with children's assertion (B = -0.722; β = -0.119; p = 0.042), and [Table 3](#) shows that parental anxiety and stress had negative associations with children's self-control (B = -0.434; β = -0.144; p = 0.032; B = -0.837; β = -0.139; p = 0.040). Moreover, parental anxiety exhibited a strong negative association (see [Tables 4 and 5](#)) with children's

cooperation (B = -0.625; β = -0.175; p = 0.010) and with children's overall social skills (B = -1.362; β = -0.179; p = 0.008). All regression models were controlled for parental age and education, household income, child's age and gender, and siblings.

On the other hand, parental depression exhibited no significant association with any of the subscales or the total score of the SSS (all p > 0.05). Furthermore, parental anxiety was not associated with children's assertion or self-control, while parental stress revealed no significant association with cooperation or overall social skills scores (all p > 0.05).

Multivariate results

The multivariate analysis identified multiple significant interaction effects between the characteristics of parental mental health and the social abilities of children (see [table 6](#)). The interaction between depression and anxiety was significant for children's assertion (F = 2.79; p = 0.026), self-control (F = 2.75; p = 0.028), and overall SSS scores (F = 3.41; p = 0.010), but not for cooperation (p = 0.108). The interaction between depression and stress was significant for assertion (F = 2.50; p = 0.043) and the overall SSS score (F = 2.55; p = 0.039), but not for self-control and cooperation. The interaction of depression, anxiety, and stress was significantly correlated with assertion (F = 3.72; p = 0.025) and the overall SSS score (F = 3.12; p = 0.045).

Table 6. Multivariate interactions result of parents' mental health and children's social skills (N=343)

Effect	Outcome	df	Mean Square	F	p-value
Depression*Anxiety	Assertion	4	20.57	2.79	0.026
	Self-control	4	19.99	2.75	0.028
	Cooperation	4	19.20	1.91	0.108
	Total SSS	4	157.07	3.41	0.010
Depression*Stress	Assertion	4	18.34	2.50	0.043
	Self-control	4	10.70	1.47	0.211
	Cooperation	4	19.48	1.86	0.117
	Total SSS	4	117.68	2.55	0.039
Anxiety*Stress	Assertion	5	12.87	1.75	0.123
	Self-control	5	13.21	1.82	0.109
	Cooperation	5	20.26	1.94	0.088
	Total SSS	5	103.92	2.26	0.050
Depression*Anxiety* Stress	Assertion	2	27.40	3.72	0.025
	Self-control	2	9.15	1.26	0.286
	Cooperation	2	21.88	2.09	0.125
	Total SSS	2	143.93	3.12	0.045

Note. df = degrees of freedom; Total SSS = Total score of the Social Skills Scale.

In contrast, the interaction between anxiety and stress showed no significant association with assertion, self-control, or cooperation (all $p > .05$) and was nearly significant with the total SSS score ($p = .050$). As for the other outcomes, specifically, cooperation was not significant with any interaction form, and self-control also showed no significant results with almost all interaction forms, except for depression-anxiety.

Discussions

The results of the current study emphasize that parents with more severe mental health problems are significantly associated with lower preschoolers' social skills among Indonesian samples. This finding is in line with prior studies indicating that parental mental health has a significant relationship with the social-emotional development of preschoolers across countries, including low-middle income countries (LMIC) settings (Honda *et al.*, 2023) (Vallotton *et al.*, 2016; Hattangadi *et al.*, 2020; Meriyandah, Nurdiantami, Shresta, *et al.*, 2025). These results suggest that children growing up in environments where parents experience elevated psychological distress may encounter challenges in developing effective social behaviors during early childhood.

The regression results of the current study classified mental health problems into depression, anxiety, and stress. In particular, parental stress had a significantly negative relationship with children's social skills subscales: assertion and self-control. In particular, parental stress was negatively associated with children's assertion and self-control, whereas parental anxiety was negatively related to cooperation, self-control, and overall social skill scores. These findings support previous research indicating that preschool-aged children's social development is associated with parental mental health, either through longitudinal or cross-sectional approaches (Ip *et al.*, 2018). Parents experiencing higher levels of stress or anxiety may have more difficulty maintaining consistent emotional responsiveness and supportive interactions with their children, which may correlate with diminished possibilities for children to develop social skills, including cooperation, emotional regulation, and assertive expression. Additionally, children of parents with mental health issues had a tendency to double the likelihood of experiencing social-emotional development disorders (OR = 1.92, 95% CI = 1.47, 2.37) compared to children of parents with lower mental health issues (Honda *et al.*, 2023).

Social learning theory posits that preschool-aged children rapidly build learning abilities through ongoing observational and auditory encounters in their daily lives (McLeod, 2025). This theory explains the possible mechanism of this phenomenon. Preschool-aged children rapidly acquire behavioral patterns through observation and repeated interactions within their immediate family environment. Parents' daily emotional

expressions, communication styles, and behavioral responses may therefore serve as important models for children's developing social behavior (Ip *et al.*, 2018; Agil, Agustina and Bunga, 2023). In line with the prior research indicating that parents with mental health challenges find it difficult to express affection or emotion, which ultimately results in this behavior being imitated by children because their judging ability to determine what is right and wrong is still limited (Zhu, 2021). In such contexts, children may have fewer opportunities to learn and practice adaptive interpersonal behaviors from the parents.

The urban context of the LMIC setting in the present study may also provide additional insights into these findings. Previous research conducted in Indonesia has suggested that parents living in urban environments may experience increased psychological pressure related to parenting, including economic demands, employment instability, and limited social support networks (Keumala, Yoestara and Putri, 2018; Saptarini *et al.*, 2021). This is generally due to many determinant factors, one of which is the predominantly nuclear family structure, making the role of parents as primary caregivers, irreplaceable. This is further compounded by economic and employment disparities, as well as environments that are more crowded than rural areas, which limits children's opportunities to play with others.

Another important finding of the present study was that multiple dimensions of parental psychological distress were simultaneously associated with children's social skills. The interaction between parental depression, anxiety, and stress in the multivariate analysis suggests that parental mental health problems may not occur as isolated conditions but rather as overlapping psychological experiences. Previous research has noted that symptoms of stress, anxiety, and depression frequently co-occur and may reinforce each other through daily emotional experiences (Feng, Xu and Lei, 2023). The current study revealed that numerous mental health disorders can coexist simultaneously, and their emotional resources for managing parenting responsibilities may be further challenged. In practical terms, this may be reflected in increased irritability, emotional withdrawal, and inconsistent parenting responses.

However, parental depression was not significantly associated with children's social skills in the current study, although previous literature often reports such relationships. This might be caused by the cross-sectional design, which captured parental depressive symptoms at a single time point only. Clinical definitions of depression typically require symptoms to persist for a minimum duration, often at least two weeks, to be considered clinically meaningful (British Columbia, 2024). Therefore, the measurements used in this study may have captured temporary emotional states rather than

sustained depressive experiences that could influence parenting behaviors over time. In addition, symptoms of depression may manifest in more internalized forms, such as emotional withdrawal or reduced energy, which may influence children's development through longer-term relational processes that are more difficult to detect in a cross-sectional design. Longitudinal studies have suggested that persistent parental depressive symptoms may exert cumulative influences on children's socio-emotional development over time (Ip *et al.*, 2018). Future research using repeated measurements or longitudinal designs would therefore be valuable in better understanding the temporal relationship between parental depression and the development of children's social skills.

Due to the nature of this cross-sectional study design, reciprocal linkages are challenging to circumvent. In future studies, a longitudinal approach would be beneficial to clarify the directions and causal effects between parental mental health and children's social skills. Furthermore, the study relied on self-reported parental mental health measures, which may have been influenced by reporting bias. Finally, the sample was drawn from an urban Indonesian setting, which may limit the generalizability of the findings to rural populations or other cultural contexts.

Despite these limitations, the findings highlight the potential relevance of parental mental health in understanding early social development in children. Early childhood is a critical period for the emergence of social competencies that support later academic adjustment, peer relationships, and emotional wellbeing. These findings suggest that efforts to support children's social development may benefit from considering the broader family environment, including parental psychological wellbeing.

Conclusion

There was a negative relationship between the mental health of parents and the social skills development of children in their early life. Parents with higher levels of anxiety or stress are associated with lower children's social skills. Positive social development in children should be viewed as an investment, and strengthening parents' mental health should be considered a potential factor. Government and policymakers should endorse the incorporation of parent-centered consultation or counseling services within early childhood education environments, enabling schools to function as accessible contact points for families requiring guidance or assistance. Educators and early childhood professionals who frequently engage with children may help identify early social development issues and promote communication with parents when necessary. Finally, future longitudinal studies with larger sample sizes and broader geographic coverage are necessary to elucidate

the underlying mechanisms linking parental mental health and children's social development over time, enhance the generalizability of the findings, and provide a more comprehensive understanding of the link across populations.

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Declaration Of Generative Artificial Intelligence (AI) Use

The ChatGPT-5.3 model has been utilized to enhance the article's language and readability. Yet, authors evaluated and modified the text as necessary to ensure correctness before submission and assume full responsibility for the publication's content.

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Availability of data and materials

The data supporting this study are not publicly available due to ethical restrictions. Requests for access should be directed to the corresponding author, who can consider providing the dataset under a signed Data Use Agreement, in accordance with participant consent and ethical guidelines.

Authors' contributions

Conceptualization: HM, YN, TA; Methodology: HM, YN, MS; Data collection: HM, YN, SS; Data analysis: HM, YN, SS, MS; Supervision: TA; Manuscript: HM, YN, SS, MS.

Declaration of Interest

The authors declare no conflicts of interest in this study.

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