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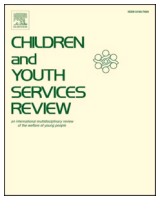
Children and Youth Services Review 160 (2024) 107599

Contents lists available at ScienceDirect

Children and Youth Services Review

journal homepage: www.elsevier.com/locate/childyouth



Family economic stress and preschooler adjustment in the Chinese Context: The role of child routines

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ARTICLE INFO

Keywords:
Child routines
Chinese preschoolers
Behavioral problems
Economic stress
Social skills

ABSTRACT

Guided by the family stress model, this study tested competing mediating vs moderating hypotheses regarding the role of consistent child routines in the relation between family economic stress and child adjustment (i.e., behavioral problems and social skills). A total of 508 parents of preschool-aged children from China completed measures of family economic stress, child routines, and child adjustment. Structural equation modeling was used to test the mediating and moderating effects of consistency in child routines in separate models. Both models indicated good fit to the data. Specifically, consistency in child routines mediated the relation between economic stress and children's behavioral outcomes. However, the competing model showed that consistency in child routines did not emerge as a moderator. The present study suggested that parents having a higher level of economic stress had more difficulties in maintaining consistent child routines in the family context, which, in turn, was associated with children's higher levels of behavioral problems and poorer social skills. Nevertheless, consistent child routines did not buffer the negative effects of family economic stress on child adjustment.

1. Introduction

Family economic stress is related to a range of child outcomes, including higher levels of behavioral problems, poorer social competence, and worse physical and psychological well-being (Liu & Merritt, 2018; Shelleby, 2018; Wimer & Wolf, 2020). Over the last few decades, the Family Stress Model (FSM) has been used broadly to understand the relation between family economic stress and child development (Conger et al., 2010; Masarik & Conger, 2017). According to the FSM, some family processes such as disrupted parenting can mediate the negative relation between family economic pressure and child adjustment (Masarik & Conger, 2017). Other family processes such as parent–child relationships have been found to attenuate the negative effect of economic pressure on child adjustment (Cao et al., 2021). As such, family correlates may serve either as mechanisms or risk/protective factors through which financial adversity undermines child adjustment. In this study, we focus on the role of child routines, a core family process that is crucial for development in early childhood (see Ecocultural theory; Bernheimer et al., 1990; Weisner, 1984; and more recent empirical studies; Bater & Jordan, 2017; Ren et al., 2019, 2022; Zajicek-Farber, 2012). We aim to test competing mediation versus moderation hypotheses regarding the role of consistency in child routines in the association between economic stress and child adjustment in a sample of Chinese families.

1.1. Child routines as mechanisms

Previous studies have revealed that economic stress has adverse effects on family routines (Agrawal et al., 2018; Budescu & Taylor, 2013), as defined by "observable, repetitive behaviors which involve two or more family members, and which occur with predictable regularity in the day-to-day and week-to-week life of the family" (Jenson et al., 1983, p. 201). For families with young children, family routine activities revolving around the child (i.e., child routines) are directly experienced by the child and thus particularly crucial for child development (Bater & Jordan, 2017; Ren et al., 2022). Common child routines include both family interactions involving the child (e.g., family time activities, mealtimes, household chores) and child activities (e.g., daily living routines, homework, discipline) arranged or supervised by adults (David et al., 2015). Previous research suggests that responsive and engaged parents are generally more skilled at establishing structured and consistent routines for their children. Thus, establishing these routines is

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https://doi.org/10.1016/j.childyouth.2024.107599
Received 24 July 2023; Received in revised form 10 April 2024; Accepted 11 April 2024
Available online 16 April 2024

often seen as an aspect of positive parenting (Bater & Jordan, 2017; Ren et al., 2019). Nevertheless, problematic routines could be detrimental rather than beneficial to children. For instance, late bedtime routines were related to fewer healthy eating behaviors in primary school children (Thivel et al., 2015). Similarly, using physically aggressive parenting as a disciplinary routine was associated with increased aggression in children (Stormshak et al., 2000).

Based on the FSM (Masarik & Conger, 2017), economic stress may serve as a precursor that can affect consistency in child routines (Brody & Flor, 1997). In the face of financial challenges, caregivers may have more difficulties in managing children's daily routines and regular activities for a variety of reasons (Brody & Flor, 1997; Conger et al., 2010; Huston, 2014), such as long working hours (Hawkins & Whiteman, 2014) and unpredictable and non-standard shifts (Almeida, 2014; Perry-Jenkins, 2014). Additionally, families with financial difficulties often live in overcrowded environments or noisier neighborhoods (Clair, 2019), which may undermine their ability to establish consistent child routines (Almeida, 2014). Supporting the FSM, Brody and Flor (1997) found that financial resource was a predictor of child routines among African American families. Larsen and Jordan (2020) found that household chaos, a correlate of financial strain and economic instability (Brown et al., 2019), was also negatively associated with consistency in child routines, family routines, and bedtime routines.

Behavioral theory suggests that consistent routines provide children with predictable environmental cues, which help them comply with parents' expectations (Sytsma et al., 2001). Indeed, recent studies have revealed that child routines could foster child adjustment, including better social-emotional skills and fewer problem behaviors (Bater & Jordan, 2017; Ren et al., 2019, 2022; Zajicek-Farber, 2012). Consistent child routines aligned to the best interest of the child's wellbeing, including daily living routines, household responsibilities, homework routines, discipline routines, and family time routines, were found to be positively related to self-regulation among children, enabling them to comply with predictable rules (Bater & Jordan, 2017; Ren & Fan, 2019). On the contrary, children lacking consistent routines in the family context tend to have more difficulties in complying with rules and encounter higher levels of social, emotional, and behavioral maladjustment (Cunha et al., 2021; Larsen & Jordan, 2020).

1.2. Child routines as a moderator

According to the FSM (Conger et al., 2010; Masarik & Conger, 2017), family correlates may also exacerbate or mitigate the negative effects of family stress on child development. Previous research showed that consistent routines in the family setting could function as a moderator and buffer the negative effect of economic stress on child adjustment (Budescu & Taylor, 2013; Turnbull et al., 2022). Specifically, routines can provide consistency and predictability that may weaken the negative effects of instability brought by economic issues. For instance, Kliewer and Kung (1998) found that consistency in family routines moderated the relation between daily stressors and behavioral problems among a group of financially impoverished inner-city children in the U. S. More specifically, consistent routines buffered the negative effects of daily hassles on children's internalizing and externalizing problem behaviors. In another study, Budescu and Taylor (2013) found that high consistency in household routines buffered the negative effect of financial adversity on adolescents' academic engagement and achievement as well as behavioral adjustment.

1.3. The present study

Previous research revealed mixed findings evolving around child routines as a plausible mediator vs moderator between economic stress and child adjustment (e.g., Brody & Flor, 1997; Budescu & Taylor, 2013; Turnbull et al., 2022). Hence, more work is needed to examine the competing hypotheses to elucidate the role of child routines. To date, existing studies on child routines have been primarily conducted in Western contexts, with few simultaneously investigating the role of economic stress. Likewise, previous studies taking place in the Chinese context have mainly examined the effects of child routines on child adjustment, after controlling for family socioeconomic factors as covariates. In addition, the participants were mainly recruited from a specific region in China, with relatively high levels of education and family income (Jiang et al., 2021; Ren & Fan, 2019; Ren et al., 2022). To address these gaps, we examined the role of consistent child routines in the linkage between economic stress and child adjustment in a socioeconomically diverse sample of Chinese families. We assessed multiple aspects of child routines (e.g., daily activities routines, family time routines) as well as child adjustment (i.e., children's social skills and behavioral problems) to more fully capture these two key constructs. We tested competing hypotheses to explicate whether consistent child routines would mediate or moderate the relation between economic stress and child adjustment.

2. Method

2.1. Participants

A total of 508 Chinese parents of children between 3 and 6 years old ($M = 5.06$; $SD = .97$) participated in this study. To increase the diversity of the sample, participants were recruited from five provinces located in northwestern, eastern, and southeastern China. A majority of the participants were mothers ($n = 427$; 84.06 %), married ($n = 495$; 97.44 %), and completed high school education or above ($n = 449$; 88.39 %). The median monthly household income was RMB 5,000 – RMB 10,000 (approx. US $785 – $1,570). About half of the families ($n = 256$; 50.39 %) had one child, 48.82 % ($n = 248$) had two children, and 0.79 % ($n = 4$) had three children. Families with more than one child between 3–6 years old completed the survey based on their younger or youngest child at this age range. Children in this study were 247 boys (48.62 %) and 260 girls (51.18 %). Approximately 59.65 % ($n = 303$) attended public schools, whereas 30.71 % ($n = 156$) attended private schools, and 9.64 % ($n = 49$) had missing data.

2.2. Procedure

The study was approved by the Human Research Ethics Committee at the first author's institution prior to its commencement. Participants were recruited through school announcements ($n = 459$ from 10 kindergartens in five provinces) and online media platforms ($n = 49$). Upon the completion of informed consent, participants were asked to fill out a questionnaire on family economic stress, consistency in child routines, and child adjustment and return the questionnaire via their child's kindergartens or online within 2–3 weeks. Participants were not paid for their participation in this study.

2.3. Measures

2.3.1. Family economic stress

Parents completed the 12-item Family Economic Strain Scale (FESS; Hilton & Devall, 1997) to assess caregivers' perceptions of family economic stress on a 5-point scale ranging from 0 (*never*) to 4 (*almost always*). Sample items included, "Financial problems interfere with my work and daily routine," "I experience money problems," and "I worry about disappointing my children because I can't give them things they want." The items were translated into Chinese using the translation-back-translation procedures (Brislin, 1970). In this study, confirmatory factor analysis (CFA) suggested good construct validity, $\chi^2(39) = 171.40$, $p < .001$, CFI = .98, TLI = .97, RMSEA = .08, SRMR = .03. The instrument also showed good internal consistency (Cronbach's alpha = .96). The scores were averaged among the items, with higher scores indicating greater family economic stress.

2.3.2. Consistency in child routines

Parents completed the Child Routines Inventory (CRI; Sytsma et al., 2001) with 25 items that had been adapted and validated by Ren et al. (2019) among Chinese families with young children. This questionnaire included five subscales, namely daily activities routines, homework routines, discipline routines, household responsibilities, and family time. The daily activities routines subscale assesses activities of daily living, such as "eats meals with family at the table each day". The homework routines subscale focuses on homework activities, such as "completes homework". The discipline routines subscale captures the family rules, such as "knows what will happen if he or she doesn't follow parent instructions or rules". The household responsibilities routines subscale pertains to housework chores, such as "cleans up food mess after snack". Items in the family time routines subscale measure interactions between family members, such as "takes turns with family members talking about their day". Parents reported how often their children engaged in the routines over the past 4 weeks on a 5-point Likert scale, ranging from 0 (*almost never*) to 4 (*nearly always*). The items were translated into Chinese using the translation-back-translation procedures (Brislin, 1970). Following Ren et al. (2019), the factor structure of the CRI was examined, with five subscales as correlated latent variables, including daily activities, homework, discipline, household responsibilities, and family time. Each latent variable was indicated by the respective items of the subscales. In this study, we conducted the CFA model with five subscales as latent variables, and they were allowed to be correlated. CFA suggested an acceptable model fit, $\chi^2(259) = 607.27$, $p < .001$, CFI = .92, TLI = .90, RMSEA = .05, SRMR = .06. Cronbach's alpha was.73 for daily activities routines,.76 for homework routines,.65 for discipline routines,.84 for household responsibilities routines, and.74 for family time routines in this study. Higher mean scores indicated greater consistency in daily routines.

2.3.3. Child adjustment

Parents completed the 76-item Preschool and Kindergarten Behavior Scales (PKBS; Jentzsch & Merrell, 1996) to rate children's social skills and problem behaviors using a 4-point scale ranging from 0 (*never*) to 3 (*often*). Similarly, the translation-back-translation procedures were used (Brislin, 1970). The Social Skills Scale includes 34 items forming three subscales, including social cooperation, social interaction, and social independence. Sample items included, "Takes turns with toys and other objects," "Asks for help from adults when needed," and "Works or plays independently." In this study, we tested the CFA model with three subscales as latent variables that were allowed to be correlated. Each latent variable was indicated by the respective items of the subscales. CFA results showed an acceptable model fit, providing evidence for sound construct validity, $\chi^2(493) = 1165.02$, $p < .001$, CFI = .91, TLI = .90, RMSEA = .05, SRMR = .04. Cronbach's alpha was.88 for social cooperation and.85 for social interaction as well as social independence.

The Problem Behavior Scale has 42 items describing a variety of problem behaviors that are common in early childhood. It includes five subscales: self-centered/explosive (e.g., "Wants all the attention"), attention problems/overactive (e.g., "Is overly active, unable to sit still"), antisocial/aggressive (e.g., "Teases or makes fun of other children"), social withdrawal (e.g., "Avoids playing with other children"), and anxiety/somatic problems (e.g., "Is anxious and tense"). In this study, the scale yielded an acceptable factor structure via CFA, with the five subscales entered as five correlated latent variables. Each latent variable was indicated by the respective items of the subscales, $\chi^2(746) = 1927.97$, $p < .001$, CFI = .91, TLI = .90, RMSEA = .06, SRMR = .05. Cronbach's alphas were.88 for self-centered/explosive,.84 for attention problems/overactive,.90 for antisocial/aggressive,.85 for social withdrawal, and.83 for anxiety/somatic subscale. Mean scores were used, with higher scores indicating higher levels of prosocial behaviors or problem behaviors.

2.4. Data analysis

Structural equation modeling (SEM) was used to test the competing mediation vs moderation hypotheses via *Mplus* 8.3 (Muthén & Muthén, 2017). In both models, a latent construct was created to index consistency in child routines using the five subscales in the child routines measure. Similarly, children's social skills and behavioral problems were also constructed as latent variables using the subscales. In the mediation model, the latent construct of consistency in child routines was regressed on family economic stress, and children's social skills and behavioral problems were regressed on family economic stress and consistency in child routines. Bootstrapping was used to evaluate the mediation effects in the model based on 10,000 bootstrap samples with replacement. To facilitate the interpretation of the moderation findings, the mean scores of the predictors were centered prior to analysis. A latent interaction variable was created, as indicated by the multiplication of family economic stress and the manifest variables of consistency in child routines. The interaction variable was then included in the model as a predictor of children's social skills and behavioral problems. In both models, full information maximum likelihood estimation was used to handle any missing data. In terms of covariates, previous research suggested that family economic stress, consistency in child routines, and child adjustment were related to child gender (Ferretti & Bub, 2014), child age (Cunha et al., 2021; Ferretti & Bub, 2014), number of children in the household (Wilson-Simmons et al., 2017), and parents' level of education (Huston, 2014). School status (e.g., public vs private) was also associated with children's consistency in daily routines (Fuligni et al., 2012). Hence, children's age and gender, the number of children in household, parents' level of education, and school status (public vs private) were all added as control variables in predicting family economic stress, consistency in child routines, and children's outcomes.

3. Results

Table 1 shows the descriptive statistics of and correlations among all study variables. The results indicated that family economic stress was negatively associated with consistency in daily activity routines, family time routines, and children's social skills. On the other hand, family economic stress was positively related to children's behavioral problems. Additionally, most aspects of consistency in child routines were positively correlated with children's social skills and negatively correlated with children's behavioral problems, with the exception of consistency in child discipline routines, which was only positively related to children's social skills.

3.1. Mediation analysis on the role of consistency in child routines

Based on SEM, the proposed mediation model obtained an acceptable model fit, $\chi^2(142) = 516.75$, $p < .001$, CFI = .93, TLI = .91, RMSEA = .07, SRMR = .04 (see Fig. 1 and Table 2). Family economic stress predicted lower consistency in child routines ($\beta = -.16$, $p = .001$) and higher levels of behavioral problems in children ($\beta = .45$, $p < .001$). However, economic stress was not associated with children's social skills ($\beta = -.05$, $p = .19$). Consistency in child routines was positively associated with children's social skills ($\beta = .70$, $p < .001$) and negatively related to children's behavioral problems ($\beta = -.30$, $p < .001$).

The indirect effect between family economic stress and children's behavioral problems through consistency in child routines was significant ($\beta = .05$, $p = .002$), and so was the indirect effect between family economic stress and children's social skills via consistency in child routines ($\beta = -.11$, $p = .001$). Bootstrapping analysis at 95 % confidence interval [CI] indicated that the standardized indirect effects of family economic stress on children's social skills [CI: (–.19, –.04)] and behavioral problems [CI: (.02,.09)] did not include zero, suggesting consistent child routines as a mediator. Hence, the results supported the mediation hypothesis.

Table 1
Mean, Standard Deviations, Correlations of the Study Variables (N = 508).

	M	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Economic strain																
(1) Family economic stress	.81	.75	—													
Consistency in child routines																
(2) Child daily activity routines	3.43	.49	−.13**	—												
(3) Child homework routines	2.89	.84	−.13**	.46***	—											
(4) Child discipline routines	2.42	.79	.00	.23***	.34***	—										
(5) Child household responsibilities routines	2.38	.66	−.03	.37***	.35***	.25***	—									
(6) Child family time routines	2.81	.60	−.17***	.50***	.55***	.39***	.51***	—								
Children's social skills																
(7) Social cooperation	2.43	.39	−.16***	.44***	.44***	.30***	.42***	.54***	—							
(8) Social interaction	2.38	.41	−.15***	.39***	.46***	.32***	.40***	.55***	.84***	—						
(9) Social independence	2.54	.37	−.17***	.43***	.38***	.27***	.32***	.46***	.77***	.78***	—					
Children's behavioral problems																
(10) Self-centered/explosive	1.06	.52	.42***	−.27***	−.23***	−.03	−.30***	−.29***	−.33***	−.27***	−.27***	—				
(11) Attention problems/overactive	1.10	.53	.40***	−.26***	−.21***	−.02	−.28***	−.30***	−.29***	−.19***	−.19***	.83***	—			
(12) Antisocial/aggressive	.58	.53	.50***	−.31***	−.21***	−.01	−.18***	−.25***	−.30***	−.23***	−.27***	.78***	.74***	—		
(13) Social withdrawal	.80	.54	.44***	−.31***	−.26***	−.05	−.21***	−.32***	−.37***	−.34***	−.38***	.83***	.75***	.80***	—	
(14) Anxiety/somatic problems	1.04	.51	.41***	−.25***	−.21***	−.02	−.28***	−.24***	−.25***	−.20***	−.30***	.81***	.75***	.73***	.82***	—

Note. *p < .05, **p < .01, ***p < .001.

3.2. Moderation analysis on the role of consistency in child routines

Family economic stress, consistency in child routines, and the interaction term between family economic stress and consistency in child routines were entered as predictors of child adjustment. The model demonstrated satisfactory fit to the data, χ^2 (251) = 974.75, $p < .001$, CFI = .95, TLI = .94, RMSEA = .08, SRMR = .07. As indicated in Fig. 2, consistency in child routines was positively related to children's social skills ($\beta = .66$, $p < .001$) and negatively related to children's behavioral problems ($\beta = -.30$, $p < .001$). However, the interaction effects between family economic stress and consistency in child routines on children's social skills ($\beta = .04$, $p = .32$) and behavioral problems ($\beta = .001$, $p = .98$) were not significant. Therefore, the results did not support the moderation hypothesis.

Overall, the results overall supported the mediation hypothesis, but not the moderation hypothesis.

4. Discussion

The current study investigated the role of consistent child routines in the relation to family economic stress and child adjustment among Chinese families. The findings indicated that consistency in child routines mediated the association between family economic stress and child adjustment. Specifically, families experiencing higher levels of economic stress were more likely to have difficulties in maintaining consistent child routines, which was then associated with children's higher levels of behavioral problems and poorer social skills. A competing hypothesis with consistency in child routines as a moderator did not yield significant findings. That is, consistent child routines did not buffer the negative association between family economic stress on child adjustment.

Consistent with the previous findings (Agrawal et al., 2018; Budescu & Taylor, 2013; Huston, 2014), the present study showed that family economic stress could undermine the consistency of family daily routines related to the child, as reflected by daily activity routines, homework routines, discipline routines, household responsibilities routines, and family time routines. Families facing a greater level of financial stress often have to endure longer working hours (Hawkins & Whiteman, 2014) or unpredictable and non-standard shifts (Almeida, 2014; Perry-Jenkins, 2014), and they are likely to have less time to engage in interactions and activities with their children. It may also be difficult for these parents to maintain consistent daily routines, such as having meals with family members at the same time and communicating/reading with their children at a set time every day. According to the FSM, parents having greater economic stress may also experience poorer family dynamics such as worse marital relationships (Landers-Potts et al., 2015). This may further undermine their abilities to formulate consistent routines for children (Ren et al., 2022).

The present study also showed that family economic stress was related to greater adjustment problems among children, such as aggressive and antisocial behavior, attention problems, and anxiety, which is consistent with existing findings in both Western and Chinese contexts (Cheung et al., 2018; Shelleby, 2018; Wimer & Wolf, 2020; Zhang et al., 2020). Interestingly, although zero-order correlation results showed a significant relation between family economic stress and children's social skills, this relation became nonsignificant after controlling for the effects of consistency in child routines and other covariates. This finding revealed that family economic stress continued to have a significant relation with children's behavioral problems but not with social skills in the mediation model. One possible reason is that children's behavioral problems are more susceptible to negative experiences in the family. For instance, family economic stress may be linked to increased conflict and negative parenting practices, such as harsh discipline, which may contribute to children's behavioral problems (Conger et al., 2010; Masarik & Conger, 2017). On the contrary, economic stress may not have as strong an association with children's social

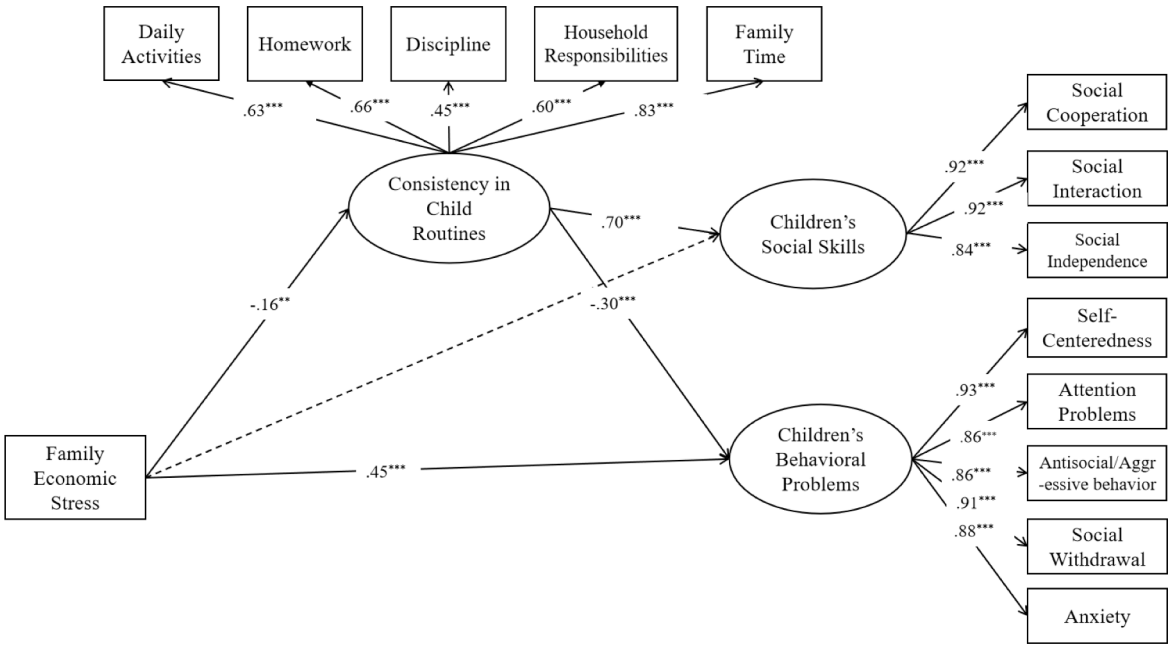

Fig. 1. Structural Equation Model with Consistency in Child Routines as a Mediator Note. Final model of consistency in child routine as a mediator between family economic stress and children's social skills and children's behavioral problems outcomes respectively. $\chi^2(142) = 516.75$, $p < .001$, CFI = .93, TLI = .91, RMSEA = .07, SRMR = .05. Parent's sex, parent's education, family income, the total number of children in the family, child's age, child's sex, and school status (public vs private) were included as covariates but are not depicted in the figure for clarity. Nonsignificant paths are depicted by dashed arrows. *p < .05, **p < .01, ***p < .001.

Table 2
Unstandardized Parameter Estimates, Standard Errors and Standardized Parameter Estimates of The Path Model.

Parameters	Unstandardized B (SE)	Standardized β
Measurement Model		
Consistency in child routines		
→Daily activity routines	1.00[f]	.63***
→Homework routines	1.79 (.15)	.66***
→Discipline routines	1.15 (.13)	.45***
→Household responsibilities routines	1.28 (.12)	.60***
→Family time routines	1.62 (.12)	.83***
Children's social skills		
→Social cooperation	1.00[f]	.92***
→Social interaction	1.06 (.03)	.92***
→Social independence	.88 (.03)	.84***
Children's behavioral problems		
→Self-centeredness	1.00[f]	.93***
→Attention problems	.95 (.03)	.86***
→Antisocial/Aggressive behavior	.94 (.03)	.86***
→Social withdrawal	1.02 (.03)	.91***
→Anxiety	.93 (.03)	.88***
Structural model		
Family economic stress		
→Consistency in child routines	-.07 (.02)	-.16**
Consistency in child routines		
→Children's social skills	.80 (.07)	.70***
Consistency in child routines		
→Children's behavioral problems	−.47 (.07)	−.30***
Family economic stress		
→Children's social skills	−.02 (.02)	−.05
Family economic stress		
→Children's behavioral problems	.29 (.03)	.45***
Error covariance		
Children's social skills		
←→Children's behavioral problems	−.01 (.01)	−.08

Note. [f] parameter is fixed to 1.00. *p < .05; **p < .01; ***p < .001.

skills, as the development of social skills in young children may be more closely tied to factors such as parental warmth and positive socialization experiences with peers (Ying et al., 2018).

Guided by the FSM, we also tested whether consistent child routines mitigated the negative association between family economic stress and child adjustment. Contrary to previous findings (Budescu & Taylor, 2013; Turnbull et al., 2022), the present study did not support the moderation hypothesis. In the moderation model, only consistency in child routines, but not family economic stress or the interaction term, emerged as a significant predictor of child adjustment. This was possibly because the child routines variable was a more proximal correlate that involves day-to-day interactions with the child (Sytsma et al., 2001). In comparison, family economic stress might be a more distal correlate of child adjustment stemming from financial strain. Another plausible explanation might be the multicollinearity issue, as the predictors were correlated to a substantial degree in the moderation model. Despite the significant zero-order correlations among family economic stress, consistency child routines, and child adjustment, the relations did not bear out in the moderation analysis, except for the association between consistency in child routines and child adjustment. To minimize the correlations among predictors due, in part, to self-report bias (Podsakoff et al., 2012), a multi-method and multi-informant approach is necessary to validate the present findings.

The study has several limitations that warrant attention. First, the study used a cross-sectional design. Longitudinal studies are needed in the future to identify the directionality of effects among the variables. For instance, we hypothesized consistency in child routines as a mediator based on the FSM (Masarik & Conger, 2017). However, it may also be the case that greater family economic stress can lead to higher levels of children's behavioral problems, which, in turn, increases children's difficulties in following consistent routines. Second, all data were collected based on reports from one parent from maritally intact families in China. Future studies will need to include observations and reports from both parents and other informants (e.g., preschool teachers) to account for potential variations in children's behaviors during interactions with different informants or in different contexts (Davé et al., 2008). Notwithstanding the above limitations, the present study revealed consistency in child routines as a potential mechanism that links family economic stress and child adjustment in Chinese families.

The findings contain both important theoretical and practical implications. From a theoretical perspective, the present study supported

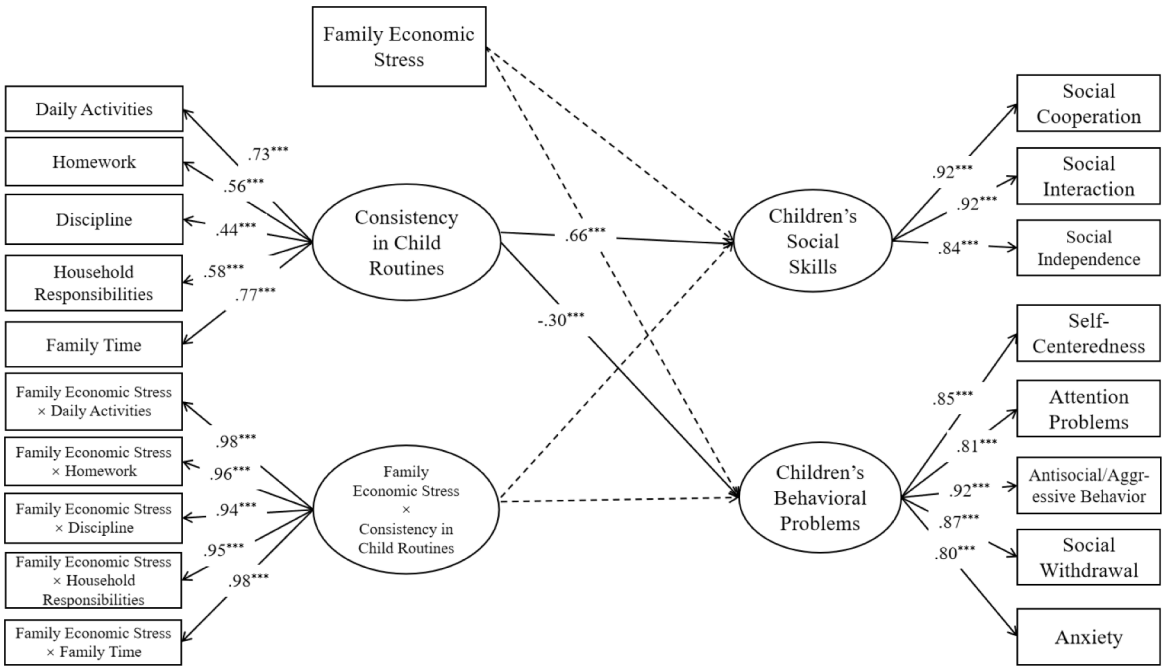

Fig. 2. Structural Equation Model with Consistency in Child Routines as a Moderator Note. Final model of child routine as a moderator between family economic stress and children's social skills and children's behavioral problems outcomes respectively. $\chi^2(251) = 974.75$, $p < .001$, CFI = .95, TLI = .94, RMSEA = .08, SRMR = .07. Parent's sex, parent's education, family income, the total number of children in the family, child's age, child's sex, and school status (public vs private) were included as covariates but are not depicted in the figure for clarity. Nonsignificant paths are depicted by dashed arrows. *p < .05, **p < .01, ***p < .001.

the FSM by demonstrating that consistency in child routines can serve as a potential mechanism through which family economic stress may affect child adjustment in Chinese families. The FSM posits that stressors in the family environment, such as economic stress, can give rise to negative outcomes for children through various pathways, including negative parenting practices, parental emotional distress, and disrupted family routines. The present study adds to this model by highlighting the importance of consistent child routines as another potential pathway.

From a practical perspective, the findings point to the importance of interventions focusing on reducing family economic stress and enhancing consistent child routines to foster optimal child adjustment. For example, flexible family-based interventions, such as parent training that provides in-person and online options outside standard working hours, can be implemented to accommodate parents' busy schedules. These programs could provide parents with strategies for managing financial stress and maintaining consistent child routines, which could eventually help improve child adjustment outcomes. Additionally, policies aimed at reducing financial strain on families, such as subsidized childcare and direct financial assistance, should be developed to ensure that these benefits are accessible to low-wage earners (LeBaron et al., 2020). These interventions could also be implemented in community-based settings such as schools, clinics, and community centers, to provide families with access to resources and support services. Compared to interventions targeting at parenting behaviors such as sensitivity and responsiveness, teaching parents to establish and maintain consistent routines for children tends to be easier because it can be divided into concrete steps for parents to acquire with assistance (Ferretti & Bub, 2014).

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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