



Research article

The multidimensionality of inter-parental conflict on aggression and mental health among adolescents

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ABSTRACT

The research sets out to reveal that multidimensionality of inter-parental conflict is a limitation in the direction of research which suggests that inter-parental conflict is a risk factor to poor mental health and aggression in adolescents. To validate the above assertion, 394 adolescents (227 males; mean age = 15.6, SD = 1.74) were purposively sampled for the study. Two hypotheses were formulated and tested and data were analyzed using the multiple regression analysis and Multivariate Analysis of Variance/Analysis of Variance (MANOVA/ANOVA) statistics. Results indicated that all dimensions of inter-parental conflict and its full scale had a significantly positive correlation with aggression while all dimensions of inter-parental conflict had a significant negative correlation with adolescents' mental health. Results further showed that all dimensions of inter-parental conflict jointly associated with aggression but only the dimensions of frequency and intensity independently related with aggression. All dimensions of inter-parental conflict jointly related with mental health while intensity, resolution, coping efficacy and self-blame dimensions independently associated with mental health of adolescents. Based on the above, the researchers recommended that the dimensionality of inter-parental conflict should be considered in further research and that intervention programs should aim at promoting positive family relationship, reducing family stress and promoting positive mental health as adolescents grow and develop in the course of time.

1. Introduction

Family conflicts have long been in existence and children have constantly experienced one form of family conflicts or the other (Cowan and Cowan, 2002). Children's experience with inter-parental conflict (IPC) is an important aspect of their development (Grych and Fincham, 2010). Children's exposure to IPC is a great threat to their emotional security and their mental health (Adeyemi, 2016; Jouriles et al., 1991). Although conflicts are inevitable in family relationships, depending on couples, they can vary in intensity, frequency and contents. Children living in households where there is a high rate of IPC and discord have higher risk of negative outcomes on their mental health and higher tendencies for future negative health outcomes in the course of their development (Holmes, 2013).

Since 1930, researchers have supported the notion that marital discord and conflict have potential mental health risk on children (Towel, 1931). A large body of evidence has shown that IPC is associated with myriads of difficulties for children and adolescents. Cross-sectional research (Grych et al., 2000; Kelly and El-Sheikh, 2011) and longitudinal works (Gerard et al., 2006) have consistently supported that

adolescents' exposure to family conflicts has debilitating effects on their mental health (Towel, 1931). When these exposures are frequent, intense and poorly resolved, there is a greater risk on the developmental outcomes of children. These outcomes could result in externalizing problems such as temper tantrums (Masten et al., 2005; Vahedi et al., 2019) which may later develop into persistent aggression that is developmentally inappropriate. These behaviors may graduate into other physical and emotional health outcomes such as academic failure, substance abuse (Van Lier et al., 2009), peer victimization (Harold et al., 2016), depressive symptoms (Natsuki et al., 2014) and sleep problems (Gregory and Sadeh, 2016). IPC could also breed some internalizing problems in the victims/children such as low self-esteem, anxiety, suicidality (Merikangas and Swanson, 2010), shyness, sadness, fearfulness and withdrawal or inhibitions (Brock and Kochanska, 2016). Parental conflict is identified as a key stress to a broad range of children's general health problems and difficulties including emotional health problems, social and interpersonal difficulties, physical health problems and psychological health (Harold et al., 2017).

Most studies carried out in the Nigerian settings supported the notion that high prevalence of IPC exists in both rural and urban communities

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(Dada and Idowu, 2006; Makinde and Adeyinka, 2014; Agboola and Oluwatosin, 2018). The strong predictors of IPC identified in many of these Nigerian studies are extended family system (Onwuasoanya, 2006), childlessness, infidelity (Olaitan and Akpan, 2003), economic and social needs (Tolorunleke, 2014) among others. The strong correlation between IPC and socio-emotional development and mental health in children was confirmed in Nigeria as it is found across the world (Osarenren et al., 2013; Amadi and Amadi, 2014).

Aggression is one of the most widely studied topics in child development because it is an important risk factor to social, emotional and psychological problems in later development (Mathieson and Crick, 2010). As a result, substantive research has been conducted to unravel the factors that are associated with the development of aggressive behavior in children. To this end, family or marital conflict has been considered a strong predictor and motivator of aggressive tendencies and a wide range of children adjustment problems aside child maltreatment (Buehler and Gerard, 2004). Research also found correlation between children's aggressive behavior and inter-parental violence (Baldry, 2003; Gorman-Smith et al., 1996). These studies support the notion that negative parenting practices in all its forms are significant risk factors contributing to the emergence and development of aggressive tendencies in children. Social learning theorists support that children especially girls' constant exposure to their mothers being abused by their fathers indirectly teaches that aggression and violence are appropriate responses to IPC (Bandura, 1973; Baldry, 2003). Adolescence is a critical juncture in the adoption of behaviors that are relevant to health (Spear and Kulbok, 2001). The early formation of healthy living has both immediate benefits and future advantages as the child continues to grow and develop into adulthood. Parenting factors, being the first primary social contexts children are exposed to, influence and shape their health and lifestyles (Roth and Brooks-Gunn, 2000). Thus, parents are important models of health-enhancing behaviors.

2. Aims and hypotheses

Although many studies have examined the role of IPC on mental health and aggression among adolescents, little is known about how dimensional IPC can relate with MHA. For instance, Adeyemi (2016) confirmed in his study using a Nigerian sample that IPC is a significant predictor of adolescents' emotional health using the same scale as used in the current study to measure IPC. Even though IPC was a predictor of health in adolescents in the study, IPC was measured on a global scale but the knowledge on the role of the dimensions of IPC was not measured in the study. Other studies that tested IPC unidimensionally include that of Jouriles et al. (2013) which assessed IPC based on the frequency of four types of behaviors exhibited by adolescents when their parents argue or fight. Lu et al. (2020) in a more recent study also measure IPC on a global scale while several other studies did the same.

The above has revealed that the concept of IPC has been applied and studied in various works and climes. However, it is important to note that how various dimensions of IPC as identified by Grych et al. (1992) could independently and jointly contribute to the development of aggressive tendencies and, of course, the mental health of adolescents is the major concern of this study. This shows that the current work has a totally different focus from other existing works on IPC. Grych et al. (1992) identified 3 dimensions with 9 subscales in their scale. The conflict dimension of the scale assesses the regularity of the occurrence of IPC and its direct effect on the children; the dimension of threat to self assesses the degree to which children feel threatened in the course of IPC and the level of their coping capabilities; and the self-blame dimension assesses the rate at which children apportion blame to themselves during IPC. Specifically, the present study aims to measure IPC as a multidimensional construct on Nigerian adolescents' population and to generate knowledge about the role of each of the dimensions of IPC on aggression and mental health of adolescents. It is hypothesized that the dimensions of IPC will significantly relate with aggression among adolescents.

Secondly, it is hypothesized that the dimensions of IPC will significantly associate with mental health among adolescents.

3. Significance of the study

The current research would be a worthy contribution to the contemporary state of knowledge in the interdisciplinary efforts to promote healthy development of children from negative consequences of IPC. The study will offer a new approach to the measurement of IPC in the Nigerian setting by incorporating the multidimensional perspective of IPC as it relates with children's psychological health. The outcome of the study will help policy formulators to develop positive and proactive programs which will promote the health of children and adolescents.

4. Method

4.1. Research design

A cross-sectional design of 394 adolescents (227 males) between ages 12 and 19 years ($M = 15.6$; $SD = 1.74$) were purposively sampled from the population of eight high schools in Ekiti State, South-West, Nigeria. 182 were between the ages of 12–15 years and 212 were between the ages of 16–19 years.

4.2. Research population

Respondents comprised both public and private school students of senior secondary classes. Based on class level, 183 (46.4%) were from SS 1 (Grade 10) class and 211 (53.5%) were from SS2 (Grade 11) class. Based on family status, 329 (84%) were from homes with both parents (intact) while 65 (16%) were from separated homes. In terms of religious affiliation, 310 were Christians, 75 were Muslims and 9 were traditionalists. A total of 400 questionnaires were distributed across the schools but 6 were discarded because they were not properly filled.

4.3. Ethical considerations and procedures

Approval to conduct the study was given by the departmental ethics and research committee of the Federal University, Oye-Ekiti, Ekiti State, Nigeria. About a week to the time of distribution of the questionnaires, informed consent was obtained from principals of the various schools used for the study. Also, informed consent forms were distributed to students to be presented to their parents in order to obtain their consent by appending their signature on the forms before such students could partake in the filling of the questionnaires. Furthermore, the teachers gave their verbal consent after the principals had approved the purpose of the research. The signed consent forms from parents were later brought back to the schools and submitted to the teachers the following day. The researchers gave a brief purpose of the research to the students after obtaining the consent of the teachers and before the questionnaires were distributed to them. The questionnaire took an average of 30–45 min to be filled by each of the students.

5. Measures

5.1. Children's Perception of Inter-Parental Conflict Scale

Inter-parental conflict was assessed by the researchers using the 48-item entitled "Children's Perception of Inter-Parental Conflict Scale" (CPIC: Grych et al., 1992) measured on a 3-point Likert scale ranging from "True" (1), "Sort" (2) to "False" (3). CPIC assesses multiple dimensions of marital conflict and adjustments in both intact and separated families via children's reports. The scale is divided into 3 dimensions with 9 subscales: conflict properties, threat to self and self-blame. Conflict properties dimension (frequency, intensity and resolution) has 18 items which all reflect the regularity of the occurrence of conflicts, hostility

level and resolution, Threat dimension (threat to life, coping efficacy and triangulation) has 16 items and are indications of the degree to which children feel threatened and the level of possession of coping capabilities in the face of inter-parental conflict. Self-blame dimension (self-blame, content and stability) has 14 items which assess the rate of child-related conflict and the degree to which children apportion blames to themselves. Samples of items include “I never see my parents arguing or disagreeing”, “My mom wants me to be on her side when she and my dad argue” and “When my parents argue I worry that they might get divorced”. The scale was originally developed for adolescents within ages 9 and 17 years but further studies extended the suitability of the scale to late adolescents and emerging adults aged 18–25 years (Moura et al., 2010). The alpha coefficients of the subscales demonstrated good internal consistency with all the values greater than .70. Test retest correlations of over two weeks period was derived for each subscale and it ranged between .70 and .76. A Cronbach alpha reliability estimate of .85 was obtained for the overall CPIC in the current study. The nine factor structure of the CPIC fairly fits the data of this study with Comparative fit index (CFI) value of .75 for the default model and .09 for the null model, standardized root-mean-square residual (SRMR) value of .058 and Root-mean-square error of approximation (RMSEA) value of .05 (90% CI: .04, .06). Although our CFI value is below the cut-off point of >.90, it is recommended that such low value may be disregarded if the null (or the independent) model is less than .158 (Kenny, 2020).

5.2. General Health Questionnaire

Mental health was assessed by the researchers using the 12-item General Health Questionnaire (GHQ- 12: Golberg and Williams, 1988) on a four-point Likert scale format. Positively worded items were scored from “never” (0) to “always” (3) while negatively framed items were scored from “never” (3) to “always” (0). Samples of items include “Have you recently been able to concentrate on what you are doing?”, “Have you recently lost much sleep due to some worry?” and “Have you recently been feeling unhappy and depressed?” GHQ-12 was validated in Nigeria by Guruje and Obikoya (1990). Alpha reliability coefficient of .74 was obtained in the current study. In this study, high scores on the GHQ indicate positive mental health.

5.3. Aggression Scale

Aggression was assessed by the researchers using Aggression Scale as developed by Orpinas & Frankowski (2001). It is an 11-item scale designed to measure self-reported aggressive behavior among adolescents. It is measured on a 3-point Likert scale ranging from “Yes” (1) to “No” (3) with sample items including “I teased friends to make them angry”

and “I got into a physical fight because I was angry”. Internal consistency scores of Cronbach’s alpha coefficient was a high score of .88. A reliability coefficient of .94 was reported for the current study. The one-dimensional construct of the Aggression Scale fits the data of this study well, CFI = .968, SRMR = .04 and RMSEA = .039 (90% CI: .02, .06).

5.4. Statistical analyses

IBM SPSS statistics version 24.0 was used for the analyses of the data collected for the purpose of the study. Multiple regression analyses was used to test the dimensions of IPC on the aggression scores of the participants and to also test the influence of IPC on mental health of the participants.

6. Results

The results of correlation analyses are presented in Table 1. All dimensions of IPC including the full scale are positively and significantly related with aggression [Inter parental conflict-full scale: $r = .26, p < .001$; frequency: $r = .21, p < .00$; intensity $r = .26, p < .001$, resolution: $r = .17, p = .001$; content: $r = .10, p = .05$; perceived threat: $r = .12, p = .02$; coping efficacy: $r = .21, p < .001$; self-blame: $r = .14, p = .001$; triangulation: $r = .13, p = .13$]. However, all dimensions of inter-parental conflict including the full scale were negatively and significantly related with mental health [Inter parental conflict-full scale: $r = -.56, p < .001$; frequency: $r = -.28, p < .001$; intensity $r = -.54, p < .001$, resolution: $r = -.47, p < .001$; content: $r = -.20, p < .001$; perceived threat: $r = -.34, p < .001$; coping efficacy: $r = -.41, p < .001$; self-blame: $r = -.41, p < .001$; triangulation: $r = -.26, p < .001$].

Hypothesis 1. The dimensions of inter-parental conflict will significantly associate with aggression among adolescents.

Table 2 showed that all dimensions of IPC interactively associate with aggression [F (8, 370) = 4.47, $p < .0001, R^2 = .08$]. However, frequency [$\beta = .13, p = .02$] and intensity [$\beta = .16, p = .02$] independently associate with aggression while resolution [$\beta = .02, p = .75$], content [$\beta = .003, p = .95$], perceive threat [$\beta = -.09, p = .16$], coping efficacy [$\beta = .11, p = .08$], self-blame [$\beta = .03, p = .68$] and triangulation [$\beta = .02, p = .69$] did not. Collectively, an increase in the level of IPC relates with an increase in aggression. Therefore, hypothesis one is accepted.

Hypothesis 2. The dimensions of inter-parental conflict will significantly associate with mental health among adolescents.

Table 3 showed that all dimensions of IPC interactively relate with mental health [F (8, 370) = 4.47, $p < .0001, R^2 = .38$]. However, intensity [$\beta = -.32, p < .0001$], resolution [$\beta = .19, p < .0001$], coping efficacy [$\beta = -.14, p = .005$] and self-blame [$\beta = -.15, p = .002$]

Table 1. Mean, standard deviation scores and correlations among study variables.

Variables N = 394	1	2	3	4	5	6	7	8	9	10	11
M	21.65	27.83	44.14	5.32	5.90	4.42	3.15	6.92	5.51	4.09	5.08
SD	6.45	7.14	12.60	1.97	3.06	2.25	1.49	2.59	2.26	1.84	2.06
1. Aggression	-										
2. General health	-.24**	-									
3. Inter-parental	.26**	-.56**	-								
4. Frequency	.21**	-.28**	.57**	-							
5. Intensity	.25**	-.54**	.79**	.38**	-						
6. Resolution	.17**	-.47**	.71**	.30**	.55**	-					
7. Content	.10	-.20**	.51**	.28**	.28**	.24**	-				
8. Perceived threat	.12*	-.34**	.75**	.41**	.48**	.43**	.36**	-			
9. Coping efficacy	.21**	-.41**	.68**	.35**	.44**	.41**	.27**	.46**	-		
10. Self-blame	.14**	-.41**	.63**	.23**	.44**	.42**	.33**	.38**	.34**	-	
11. Triangulation	.13*	-.26**	.63**	.24**	.42**	.38**	.29**	.50**	.31**	.34	-

* $p < 0.05$ (2-tailed); ** $p < 0.001$ (2-tailed).

Table 2. Summary of regression analysis showing the relationship between inter-parental conflict and aggression.

Variable	β	t
Frequency	.13*	2.26
Intensity	.16*	2.41
Resolution	.02	.32
Content	.003	.06
Perceive threat	-.09	-1.40
Coping efficacy	.11	1.77
Self-blame	.03	.41
Triangulation	.02	.40
R	.30	
R ²	.01	
F	4.47**	

* $p < .05$; ** $p < .01$.

independently associate with mental health while frequency [$\beta = -.03$, $p = .49$], content [$\beta = .02$, $p = .74$], perceive threat [$\beta = .02$, $p = .78$] and triangulation [$\beta = .02$, $p = .69$] did not. In all, an increase in IPC relates with poor mental health. Therefore, hypothesis two is accepted.

7. Discussion

The study aimed to test the extent of the influence of IPC on the mental health and aggression of adolescents. Specifically, the study investigated the extent to which each of the dimensions (subscales) of IPC, namely, frequency, intensity, resolution, threat to life, coping efficacy, triangulation, self-blame, content and stability associate with mental health conditions and aggression of adolescents in Ekiti State, Nigeria. The correlational analyses of the variables revealed that all the dimensions of IPC together with the full scale (global score) were positively and significantly related with aggression. This indicates that the higher the level of adolescent's exposure to IPC, the higher is the level of aggressive tendencies in such adolescents. Past studies have identified aggression as a risk factor to adolescent's future social, psychological, emotional and psychological problems (Mathieson and Crick, 2010; Van Eldik et al., 2020) but the mechanism by which aggression develops and influences future adjustments in adolescents has not been given attention. The present study identified all dimensions of IPC as a correlation to aggression in adolescents thereby implying that aggression tendencies develop in children or adolescents from the homes where marital discord and violence exist. Van Dijk et al. (2020) found in their study a correlation between IPC and child adjustment especially in the context of post-divorce IPC. The correlational analyses also revealed that all

Table 3. Summary of regression analysis showing the association between inter-parental conflict and mental health.

Variable	B	t
Frequency	-.03	-.69
Intensity	-.32**	-5.83
Resolution	-.19**	-3.59
Content	.02	.33
Perceive threat	.02	.28
Coping efficacy	-.14**	-2.84
Self-blame	-.15**	-3.15
Triangulation	.04	.77
R	.61	
R ²	.38	
F	27.81**	

** $p < .01$.

dimensions of IPC with the full scale (global score) were negatively and significantly related with mental health. This implies that the lower the perceived IPC in adolescents, the higher is the feelings of mental health. This is an indication of a strong association of IPC with the emotional, social and psychological health of adolescents. This finding is in congruence with McCoy et al. (2013); and Ward and Lee (2020) which identified that there are chronic, unresolved and intense hostility in the homes where marital conflicts are frequent which undermines children's sense of insecurity and adjustments thereby limiting their emotional security (Davies and Lindsey, 2004).

The first hypothesis which stated that all dimensions of IPC will significantly associate with the level of aggression among adolescents was supported. The analysis showed that all dimensions of IPC interactively relate with aggression. However, the dimensions of frequency and intensity only formed association with aggression. Recent studies (Chaudhry and Shabbir, 2018; Harold and Sellers, 2018) identified significant positive influence of inter-parental conflict on aggression. Rhoades (2008) established that externalizing behavior problems have more influence on children's reactions to IPC than internalizing behavior. They further stated that aggressive children are more likely to involve themselves in their parent's conflict than non-aggressive children. However, many of the past studies measured the association of the variables at a full scale. Thus, the independent relationship of each of the sub-scales could not be established. Furthermore results for hypothesis one identified frequency and intensity sub-scales of IPC as independent predictors of aggression in adolescents. Many studies have suggested a relationship between frequency of IPC and child outcomes (Grych and Fincham, 1993; Yoa, 2020). Frequency is described as the rate by which parents are involved in conflicts at home. The frequency of IPC relates with children's sensitivity to future violence and aggression. Kerig (1996) found that the frequency of IPC has a strong correlation with adolescents' internalizing and externalizing problems. Willems et al. (2020) discovered from their study that Adolescents' experiences of family conflicts hamper self-control capabilities in them through common genetic factor influences. The work of Willems et al. (2018) reiterates the association between low self-control and maladjustment in the wake of family conflict mostly in early adolescence. In addition to frequency, the intensity sub-scale also relates with IPC independently. Intensity is an important factor and dimension in IPC which varies from minor disagreements to severe verbal and physical aggression. Past studies have indicated that there exist more negative responses to physical aggression in IPC than in other types and levels of conflicts (Vahedi et al., 2019). This further explains that the severity of a conflict is a strong determinant of its perception and sensitivity in adolescents.

The result of hypothesis two was also confirmed in the study. The hypothesis stated that the dimensions of IPC will significantly associate with mental health among adolescents. The result showed that all dimensions of IPC interactively associated with mental health of the adolescents, however, intensity, resolution, coping efficacy and self-blame each independently relates with mental health. Most studies (Adeyemi, 2016; Harold et al., 2016; Meng Gao et al., 2017; Lu et al., 2020) have confirmed IPC as a strong predictor of mental health and general health in both children and adolescents. The current study identified the various dimensions of IPC that independently associate with mental health of the participants in the study. Four out of nine subscales significantly associated with mental health, implying that the other five (frequency, threat, content, triangulation and stability) can only combine with other sub-scales to associate with mental health in adolescents. Intensity depicts the severity of IPC and its independent association with mental health implies that the depth of the conflict invariably determines the social, emotional, physical and psychological impact on the host (Osarenren et al., 2013). Buehler et al. (2007) did not report any significant difference between adolescents' exposure to higher levels of IPC (more frequent, severe/intense) and those with lower levels and exposure to IPC along their mental health. The present study was able to identify the dimensions of IPC that associate with mental health unlike previous

studies that measured IPC as a full scale. Some recent studies (Brock and Kochanska, 2016; McTavish et al., 2016) confirmed that the intensity dimension relates with poor mental health.

Studies have shown that self-blame increases the levels of internalizing problems. It is presumed that increased perception of self-blame or personal responsibility of stress may sensitize a person and this could produce a heightened levels of negative thoughts, feelings and inner turmoil (Grych et al., 2003). Thus, self-blame can act as a strong predictor of health in adolescents and these age groups are more mature and they reason more cognitively than children, hence, they will not unnecessarily apportion blame to themselves in the face of IPC. Thus, they are less likely to claim responsibility therefore demonstrating less maladjustment (Gerard et al., 2005). Resolution is another IPC dimension that relates to mental health independently. Resolution is the degree to which conflicts are resolved successfully by the parents. When conflicts are resolved, it usually ends with apology or compromise but the unresolved conflicts usually end with non-communication or withdrawal. Adolescents perceived the resolved conflict as a less negative event, hence its predictive role on mental health (El-Sheikh et al., 2010; Vahedi et al., 2019). This is a demonstration that adolescents' prior exposure to resolved conflict leaves them with positive expectations about outcomes while unresolved conflicts cause emotional distress and insecurity in them. Coping efficacy dimension was also independently associated with IPC. Coping efficacy is the sense of competence and capability possessed by individuals for accomplishing their goals and overcoming life challenges. It is a global belief possessed by an individual to be able to effectively deal with the demands and emotions that are aroused at any situation (Sandler et al., 2000). Studies have confirmed the negative relationship between IPC and self-efficacy. Adolescents who are exposed to higher IPC exhibit lower self-efficacy (Parsa et al., 2014).

8. Strengths and limitations

Although many studies have confirmed the positive correlation between IPC and aggression and negative correlation between IPC and mental health, how the quality of IPC (dimensions) affects the dependent variables (aggression and general health) is the main strength of the study. Thus, the current study has advanced the understanding of the role of IPC on the mental health of adolescents. However, the study has some limitations which should be noted. Given that the study's design is cross-sectional, drawing cause and effect relationship from the study could be misleading. Also, the research may not be too sufficient enough so as to generalize its findings because the sample size is small. Moreover, obtaining data from parents would have increased the robustness of the quality of data instead of the self-report data from adolescents only. It is, therefore, suggested that future studies should include both mothers' and fathers' conflict experiences for data analyses and that IPC should be measured from multi-dimensional perspective.

9. Clinical implication of study

Clinicians need to pay more attention to the high rate of parental conflicts in homes and the implications on the development of children's general health. This should be incorporated when decisions about the assessment, diagnosis and treatment of mental health in children and adolescents are in focus.

10. Conclusion

Our findings have added to previous cross-sectional studies that confirmed the influence of IPC on the aggression and mental health of adolescents using nine inter-parental sub-scales. In the light of the findings of the study, the researchers recommended that intervention programs aimed at promoting positive family relationship and reducing marital stress are most likely to benefit the family and the society at large.

Declarations

Author contribution statement

Ajoke Olabimpe Olatunji: Conceived and designed the experiments; Performed the experiments; Wrote the paper.

Erhabor Sunday Idemudia: Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data.

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Data availability statement

Data will be made available on request.

Declaration of interests statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

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