### **ORIGINAL ARTICLE:**

# HOUSEHOLD CHAOS AND SOCIAL ADAPTIVE FUNCTIONING OF ADOLESCENTS: ROLE OF COPING STRATEGIES AS A MODERATOR

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## **ABSTRACT**

## **OBJECTIVE**

To examine the interplay between the household chaos, social adaptive functioning and coping among adolescents.

## **STUDY DESIGN**

Cross-sectional study

## PLACE AND DURATION OF THE STUDY

Four cities of Pakistan, namely Rawalpindi, Islamabad, Sargodha and Faisalabad, from June 2020 to January 2021.

## **METHOD**

A total of 400 participants between age 10 to 19 years were chosen by convenience sampling technique to participate in the study. Confusion, Hubbub and Order Scale (CHAOS), Child and Adolescents Social Adaptive Functioning Scale (CASAFS), and Brief Cope Scale (BCS) along with demographic sheet were used to collect data through Google Forms.

## **RESULTS**

Results revealed that as the household chaos increases, the social adaptive functioning decreases (r=.33\*\*). The results of findings depict that problem-focused coping buffer the effect of household chaos on school performance ( $R^{2=}.31$ ,  $\Delta R^2=.30$ , p<.05) and on home duties /self-care ( $R^{2=}.23$ ,  $\Delta R^2=.22$ , p<.05). Results of emotion-focused coping revealed that EFC buffer the effect of household chaos on peer relationship ( $R^{2=}.23$ ,  $\Delta R^2=.22$ , p<.05) and on family relationship ( $R^{2=}.33$ ,  $\Delta R^2=.32$ , p<.05).

## CONCLUSION

Household chaos, social adaptive functioning and coping have an interdependent relationship among adolescents. Increased household chaos predicted decline in social adaptive functioning, while coping played a moderating role between these two factors.

## **KEY WORDS**

Household Chaos, Social Adaptive Functioning, Coping Strategies, Adolescents

## INTRODUCTION

Adolescence is recognised as a stage of life characterised by a multitude of profound changes, encompassing physical, emotional, social, and psychological development. Among all demographics, teenagers are particularly vulnerable to stress. As the most distinct and transformative period of human growth, adolescence is the central focus of this study. It is defined as a phase of significant physical and psychosocial transformation, including major developments in physiology, cognition, emotion, social interaction, and intellect.

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Household chaos, meanwhile, refers to "an environment marked by disorganization, lack of structure, unpredictable routines, and excessive sensory stimulation." Household chaos is a to a state of disorganisation, clutter, and confusion within a home environment. This can manifest in various ways, such as cluttered living spaces, disorganized schedules, noise and distractions, and lack of routines. Household chaos can impact individuals' stress levels, productivity, and overall wellbeing. By addressing household chaos, individuals can create a more peaceful, productive, and supportive living environment.

Matheny and Wachs describe a chaotic home environment that has disruption, noise, crowding, instability, and irregularity in routines, can contribute to increased stress within the household<sup>2</sup>. This chaos introduces unpredictability and tension into family life, undermining the quality of family interactions and communication<sup>3</sup>. Numerous examples highlight the significant impact that household chaos can have on an individual's well-being, underscoring the importance of addressing it. Such disorder poses a considerable risk to both physical health and emotional wellness. However, research also indicates that effective coping strategies can help lessen these negative effects<sup>4</sup>. Social adaptive functioning, defined as observable and measurable behaviours and skills that promote independence, social harmony, and personal satisfaction, plays a critical role. It encompasses conceptual, practical, and social abilities that individuals learn and apply to meet societal expectations and demands.<sup>5</sup>

Social adaptive functions are the skills or abilities that equip people to appropriately navigate and interact with their social environment. These functions include communication, empathy, problem-solving, and relationship-building, allowing individuals to adapt to various social situations, form meaningful connections, and participate fully in their communities. Strong social adaptive functions are essential for personal and professional success, as well as overall well-being and mental health. By developing these skills, individuals can better manage social challenges, build resilience, and foster positive relationships with others.

Adaptive functioning is an important area of an individual's developmental process as it evaluates a person's behaviour, overall functioning, and potential through their daily performance. Research indicates that household chaos acts as a significant risk factor, negatively impacting both executive functions and the adaptive functioning at teen age<sup>6</sup>. Chaotic home inhabitants often demonstrate a decrease in both academic performance and adaptive behaviour<sup>7</sup>.

To manage the tension generated by such environments, individuals employ coping strategies—specific mechanisms for handling stressful events. Coping strategies are essential for managing stress, anxiety, and overwhelming emotions. Coping methods may include meditations that focus on mindfulness and breathing exercises, all kinds of physical workouts, and experience of arts and crafts like writing or art. Additionally, setting realistic goals, prioritizing self-care, and seeking social support from friends, family, or professionals can also help individuals navigate challenging situations. By developing healthy coping strategies, people can build resilience, improve their mental well-being, and enhance their ability to handle adversity.

These strategies are effective in reducing stress levels<sup>8</sup>. For instance, a coping strategy that focuses on problem solving shows a strong positive correlation with better academic scores and self-efficacy,<sup>9</sup> while coping that works on an emotional level helps the students against stress and adverse situations by enabling them for better handling of the outcomes.<sup>10</sup> Managing stress and emotions requires effective coping strategies. These can include mindfulness practices like meditation and deep breathing, staying physically active, expressing oneself creatively, setting achievable goals, prioritizing self-care, and seeking support from others. By adopting healthy coping mechanisms, individuals can develop resilience and improve their overall well-being.

The objective of the present research was to examine the interplay between the household chaos, social adaptive functioning and coping among adolescents. The study addresses a gap in existing local literature in three main ways: first, by focusing on the challenges associated with household chaos and social adaptive functioning; second, by assessing the effect of family chaos on social adaptive functioning; and third, by exploring the role of coping techniques as a moderator and their effectiveness in promoting social adaptive functioning. Ultimately, this study applies the concept of household chaos to higher-risk youth patterns, investigating how domestic chaos influences social adaptive functioning and how coping strategies can help manage these challenges.

## **METHOD**

## **Participants**

The study included four hundred adolescents between 10 to 19 years of age. Information was gathered from cities in Pakistan (Rawalpindi, Islamabad, Sargodha and Faisalabad) from June 2020 to January 2021. The participants were approached through convenience sampling technique, and data were gathered through Google Forms. The participants were included on the requirement of CASAFS as it had a subscale of academic performance, so only educated adolescents were contacted. Adolescents with disabilities and madrasah students were excluded.

#### Instruments

A written informed consent form, a demographic sheet, and following questionnaires were used to collect data.

**Confusion, Hubbub and Order Scale (CHAOS):** <sup>11</sup> It consists of 15 items with a response set of true or false. Statements responded with true are scored 1 and statements responded in false are scored 0. It has satisfactory alpha reliability. For measuring chaos in households of adolescents the Urdu translated version of scale was employed.

Child and Adolescents Social Adaptive Functioning Scale (CASAFS): It is a 24-item questionnaire designed to assess social functioning though self-administration. The items are divided into four distinct domains, each containing six items: School Performance, Peer Relationships, Family Relationships, and Home Duties/Self-Care.

Urdu translation of the scale was used in the present study. The instrument uses a 4-point Likert scale scored from 1 to 4 as frequency of the response increases.

After piloting item no 10 was amended for gaining more clarity. Furthermore, another response option, "Does not apply," was introduced. The scale demonstrates adequate internal consistency, ranging from .67 to .81.

**Brief COPE Scale (BCS):** The BCS is a 28-item measure that assesses 14 distinct coping strategies. Each item is rated on 4-point response set. The scale has sufficient validity and reliability (.50 to .90). The instrument measures three primary coping types: problem-focused, emotion-focused, and avoidant. For this study, the Urdu-translated version of the Brief COPE was utilised to evaluate the coping strategies of the participants.

## **Procedure**

Before the commencement of the study, ethical approval was sought from the Faculty of Board of Studies, National University of Modern Languages, Islamabad, Pakistan (ref no. ML.1-7/2020/PSY, dated: 23-12-2020). Upon receiving official permission, the main study was conducted on 400 adolescents, whose ages ranged from 10 to 19 years. To ensure participants could understand the content easily and respond comfortably, the Child and Adolescents Social Adaptive Functioning scale

was translated into Urdu. This translation also served to standardise the language across all assessment tools, as the other measures were already available in Urdu.

Authorisation to translate the scale was obtained from its original author. The CASAFS translation was conducted in a two-stage process: forward and backward translation. For the initial forward translation into Urdu, five bilingual experts, selected for their proficient command of both English and Urdu, were individually consulted. Following this, a committee of four members convened to review the translations. The most contextually, grammatically, and semantically accurate statements were selected to finalise the Urdu version. The subsequent backward translation was performed to identify any potential discrepancies, loss of meaning, or wording differences between the source and target texts. This step employed the same rigorous procedure involving bilingual experts and a committee

A google form was generated that had informed consent section, a demographic sheet and the scales. Link of the form was spread through social media groups to request parents to consent and in case of consent let their adolescent fill in the form. Data was analysed through computerized software.

#### **RESULTS**

The study included four hundred adolescents consisting of one hundred sixty-five males and two hundred thirty-five females between 10 to 19 years of age with a mean of 15.9 years and a standard deviation of 2.47. Information was gathered from distinctive cities of Pakistan, and participants were approached through convenience sampling technique. About half of the sample lived in joint families (49%) and half in single family units (51%).

Results showed that 121 (30.8%) adolescents were from 10 years to 14 years, while 277 (69.5%) were between age range of 15 years to 19 years. The alpha coefficients were satisfactory and reflect good reliability and internal consistency of the instruments. The values for skewness and kurtosis were also acceptable, suggesting a normal distribution of the data.

To assess the relationships between the study's variables, a Pearson Product-Moment Correlation analysis was conducted. The correlation matrix indicated several notable associations. A negative correlation was found between household chaos and social adaptive functioning, suggesting that adolescents from more chaotic home environments tend to have lower social adaptive skills. In contrast, coping strategies demonstrated a strong positive association with social adaptive functioning and a negative relationship with household chaos. Specifically, both problem-focused and emotion-focused coping were positively associated with improved outcomes in school performance, family relationships, peer relationships, and self-care/home duties. The analysis also revealed that the only coping strategy significantly linked to household chaos was dysfunctional coping, which showed a positive relationship (Table 1).

# Table 1 Inter-scale Correlation of the study variables (N=400).

Note. CHAOS: Confusion, Hubbub and Order Scale; CASAFS: Child and Adolescent Social Adaptive Functioning

Scale;
SP: School Performance; PR: Peer Relationship; FR: Family Relationship; HD: Home duties/ Self-care;

PFC: Problem Focused Coping; EFC: Emotion Focused Coping; DC: Dysfunctional Coping.

A moderation analysis was conducted using a macro-model approach. The study evaluated the moderating effect of three coping strategies—problem-focused coping, emotion-focused coping, and dysfunctional coping—on the relationship between chaos and four outcome variables: school performance, peer relationships, family relationships, and home duties/self-care.

As detailed in Table 2, the findings indicate that coping strategies play a substantial moderating role. Both problem-focused and emotion-focused coping were significant positive predictors of all four outcomes. In contrast, dysfunctional coping was a significant negative predictor of school performance. Furthermore, chaos itself had a significant negative effect on school performance, peer relationships, family relationships, and home duties/self-care. This suggests that adaptive coping strategies can buffer against the negative impacts of chaos, while dysfunctional coping exacerbates

Variables	Mean	SD	CASAFS	SP	PR	FR	HD/SC	CHAOS	COPE	PFC	EFC	DC
CASAFS	69.1	7.80	-	-	-	-	-	-	-	-	-	-
SP	16.9	2.53	.68**	-	-	-	-	-	-	-	-	-
PR	19.8	3.83	.22**	.21**	-	-	-	-	-	-	-	-
FR	17.9	2.74	.65**	.28**	.16**	-	-	-	-	-	-	-
HD/SC	19.0	3.91	.76**	.34**	.14**	.31**	-	-	-	-	-	-
CHAOS	4.45	3.54	33**	.30**	.20**	-	16**	-	-	-	-	-
						.30**						
COPE	17.0	9.86	.11*	.02	.08	.01	.13**	.08	-	-	-	-
PFC	18.1	4.11	.18**	.18**	.12*	.10*	.18**	03	.73**	-	-	-
EFC	28.9	4.28	.19**	.19*	.18**	.12*	.19**	02	.78**	.56**	-	-
DC	27.9	5.01	10*	15*	.18**	-	05	.22**	.05	12	-	-
						.17**					19**	

them.

Table 2
Moderating effect of Coping Strategies with Household Chaos on Social Adaptive Functioning (N=400)

Predictor		Scho	ol Per	forma	nce			Pee	er Rela	tionsh	ip			Fan	nily Re	ations	ship			Home	e Dutie	es/Self	-care	
S	В	SE	t	р	959	%CL	В	SE	t	р	959	%CL	В	SE	t	р	95%	6CL	В	SE	t	P	95%	6CL
		В		P	LL	UL		В	•	۲	LL	UL		В	•	P	LL	UL		В	•	•	LL	UL
Constant	16. 8	1.1	15	.00	14	19	20. 4	1.7	11. 6	.00	17	23	19. 4	1.2	16. 1	.00 0	17	21	16. 9	1.7	9.5	.00 0	13	20
CHAOS	18	.16	.96	.06 4	- .5 1	.1 4	01	.25	04	.96 0	- .5 2	.4 9	50	.17	-2.8	.73 0	85	.1 5	19	.26	74	.05 8	71	.3 2
PFC	.05	.05	1.1	.00 5	- .0 5	.1 7	.08	.09	94	.34 5	- .2 7	.0 9	.02	.06	34	.00 4	14	.1 0	.15	.09	1.6	.01 5	02	.3 4
PFC× CHAOS	01	.08	.20	.00 3	- .0 1	.0 5	.02	.01	.91	.09 1	- .0 1	.0 3	.01	.09	1.5	.11 0	03	.0 3	.01	.01	.09	.03 2	02	.0 2
	(	(R <sup>2=</sup> .31	, ΔR²=	.30, F=	:14.8)			(R <sup>2=</sup> .20	0, ΔR²=	.19, F	=5.9)			(R <sup>2=</sup> .32	2, ΔR²=	:.31, F:	=15.6)			(R <sup>2=</sup> .2	23,∆R²:	=.22,F:	=7.4)	
Constant	16. 1	1.4	1.5	.00	13	18	22. 8	2.1	10. 4	.00	18	27	18. 3	1.5	12. 1	.00	15. 4	21	16. 1	2.2	7.3	.00	11. 8	20
CHAOS	17	.04	.70	.48 1	- .6 5	.3 0	63	.37	-1.8	.00 5	- 1. 3	.1 1	51	.26	-2.1	.02 9	-1.0	.0 5	49	.38	-1.2	.19 8	-1.2	.2 5
EFC	.05	.24	1.2	.21 0	.3	.1 5	.13	.07	-1.5	.01 4	- .2 8	.0 8	.02	.05	.42	.07 3	07	.1 2	.12	.07	1.7	.08 9	01	.2 7
EFC× CHAOS	10	.08	.19	.08 4	.0 1	.0 5	03	.01	2.2	.02 3	.0	.0 5	.02	.08	1.3	.01 9	05	.0 2	.01	.01	.84	.39 6	01	.0 3

	(	R <sup>2=</sup> .32	, ΔR²=	.31, F=	15.1)			(R <sup>2=</sup> .23	3, ΔR²=	.22, F	=7.3)			(R <sup>2=</sup> .3	3, ΔR²=	:.32, F	=16.1)			$(R^{2}=.2)$	25,ΔR²=	=.24, F	=9.2)	
Constant	17.	1.0	17.	.00	15	19	19.	1.5	2.3	.00	15	22	19.	1.8	18.	.00	17.	22	19.	1.6	11.	.00	16.	22
	2		1	0			1			0			8		3	0	7		3		9	0	1	
CHAOS	17	.21	.82	.40	-	.6	74	.33	-2.2	.02	-	.0	01	.23	05	.95	47	.4	.10	.34	.31	.75	57	.7
				8	.2	0					1.	9				3		4				1		9
					4						3													
DC	02	.03	.64	.51	-	.0	05	.05	09	.99	-	.1	34	.03	89	.37	11	.0	08	.05	.31	.75	09	.1
				7	.0	9					.1	7				3		4				5		3
					4						0													
DC×	01	.07	1.8	.01	-	.0	.03	.01	2.8	.42	.0	.0	07	.08	87	.38	02	.0	09	.01	81	.41	03	.0
CHAOS				6	.0	0					1	5				2		8				3		1
					2																			
	(	R <sup>2=</sup> .32	, ∆R²=	.32, F=	15.4)		(	$R^{2}=.32$	, ΔR²=	.32, F=	:15.4)			$(R^{2}=.3)$	2, ∆R²=	:.31, F:	=15.3)			$(R^{2}=.2)$	26,ΔR²=	=.25, F	=5.7)	

Note. CHAOS= Confusion, Hubbub and Order Scale, PFC= Problem Focused Coping; EFC= Emotion Focused Coping; DC= Dysfunctional Coping.

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### **DISCUSSION**

This study aimed to investigate whether coping strategies moderate the relationship between household chaos and the social adaptive functioning of adolescents. First, the psychometric properties of all measurement scales were assessed. The alpha coefficients, which ranged from .61 to .82, fell within a satisfactory range. Values above .60 are generally considered acceptable, while those above .80 are preferable for demonstrating strong reliability. These results indicate that the instruments used were internally consistent and reliable<sup>13</sup>.

An inter-correlation analysis revealed the relationships between household chaos, social adaptive functioning, and coping strategies. A significant negative association was found between household chaos and social adaptive functioning, including all its subscales. This indicates that higher levels of chaos in the home predict greater social dysfunction in adolescents<sup>6</sup>. These findings are consistent with prior research linking household chaos to impaired executive functioning, suggesting that a chaotic home environment acts as a risk factor that adversely affects adolescents' adaptive skills<sup>7</sup>. Furthermore, the literature indicates that individuals from chaotic homes often demonstrate lower academic achievement and less adaptive behaviour. Household chaos is also known to negatively impact parenting quality, which in turn leads to poorer behavioural outcomes in children<sup>14</sup>.

A moderation analysis revealed that the practice of problem-focused coping strategies is an important positive predictor of school performance. This finding is consistent with prior research investigating the link between household chaos and academic outcomes<sup>15</sup>. Previous studies have indicated that children from quieter, more organised, and predictable home environments tend to perform better academically, a trend that holds true across various socioeconomic backgrounds<sup>7</sup>.

Furthermore, problem-focused coping appeared as a significant positive predictor of peer relationships, family relationships, and the management of household chores/self-care. In contrast, household chaos had a significant negative effect on these same areas. This aligns with earlier research highlighting that greater resilience and adaptive skills can help mitigate the adverse impacts of a disorganised home environment<sup>16</sup>.

Emotion-focused coping demonstrates a significant positive correlation with academic achievement. This aligns with prior research suggesting that this coping style can be adaptive and is linked to stronger school performance<sup>17</sup>. However, the effects of emotion-focused coping appear to be context-dependent. One notable finding indicates that its use negatively predicts the quality of peer relationships. This contrast highlights how emotional management strategies can differently impact various life domains.

Conversely, emotion-focused coping shows a positive association with family dynamics and the management of household duties and self-care. These mixed outcomes are consistent with existing literature, which often characterises this coping mechanism as potentially maladaptive. The rationale is that by concentrating intensely on internal distress and negative emotions rather than actively addressing external problems, individuals may hinder their ability to progress, maintain optimism, and effectively solve challenges, ultimately leading to increased psychological distress<sup>18</sup>.

The use of dysfunctional coping mechanisms is a significant negative predictor of an adolescent's performance in school, the quality of their peer and family relationships, and their ability to handle home duties and self-care. Previous studies have established that effective coping is vital for mental health, as

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it buffers against stressful events. Coping efficacy is particularly crucial for adolescents. Findings consistently show a direct correlation between adaptive coping strategies and enhanced quality of life and psychological well-being<sup>19</sup>. Furthermore, research indicates that problem-focused coping is a key mechanism through which social support improves a student's overall well-being<sup>20</sup>.

#### Limitations

Several limitations should be noted in this research. Primarily, the cross-sectional study design inhibits the ability to determine causal links among the variables of household chaos, social adaptive functioning, and mental health of adolescents. The generalizability of the results is also constrained by the demographic homogeneity of the sample, which was restricted to urban university students within a specific age cohort. Moreover, potential influences from socio-cultural factors on emotional expression were not accounted for, presenting a possible confounding variable. A further limitation was the reliance on quantitative methods alone, which precluded richer, qualitative insights into the participants' personal experiences.

### **CONCLUSION**

This study found that household chaos is a significant predictor of challenges in social adaptive functioning among adolescents. The research instruments used were determined to be reliable and valid for measuring the intended concepts.

The findings further indicate that coping strategies act as a moderator in the association of household chaos and social functioning. Specifically, both problem-focused and emotion-focused coping techniques were shown to alter this relationship, though they functioned in different ways. The presence of these coping strategies was found to reduce the negative impact of household chaos on adolescents' social adaptation.

Based on these results, it is recommended that parents and adolescents be educated about effective coping strategies. Furthermore, intervention programs designed to enhance these skills could be beneficial for supporting adolescents' social development.

## Recommendations

This research gathered data through a cross-sectional survey of adolescents from four cities: Rawalpindi, Islamabad, Sargodha, and Faisalabad. For future studies, collecting data from a wider range of cities in Pakistan would make the findings more representative and applicable to the broader population. Future work could also use qualitative research to better understand the detailed effects of a chaotic home environment on teenagers' social skills and how they cope, specifically looking at differences between various age groups.

## **CONFLICT OF INTEREST**

None

## **FUNDING**

None

#### **DISCLOSURE**

This research is part of a thesis for MPhil Psychology submitted to the National University of Modern Languages (NUML), Islamabad, Pakistan.

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## **AUTHOR(S) CONTRIBUTION/UNDERTAKING FORM**

Sr.	Author(s) Name	Author(s) Affiliation	Contribution					
1	Sadia Rehman	NUML Islamabad, DHQ Hospital Faisalabad	Designing & Planning the research work					
2	Saadia Aziz	NUML Islamabad	Review Manuscript					
3	Imtiaz Ahmad Dogar	DHQ Hospital Faisalabad	Review Manuscript					