

Examining the Relationship Between Social Support and Coping Mechanisms among Thoothukudi Flood Survivors

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Abstract

The study investigated social support and coping mechanisms among young flood survivors in Thoothukudi, Tamil Nadu. Random sampling was employed to select 168 participants between the ages of 18 and 30. To measure these restricting constructs, the data-gathering involved using the Social Support Index (SSI) and the Coping Scale. Results showed that a positive correlation existed between social support and coping mechanisms (Spearman's $\rho = 0.392$; $p < 0.001$). Therefore, individuals with higher social support were observed to employ more adaptive coping methods. Gender-based comparisons showed men have significantly higher scores for coping mechanisms than women ($t = 2.097$; $p = 0.037$), whereas the levels of perceived social support do not show any significant differences between the two sexes. Urban-rural analyses showed no significant difference existed. These findings highlight the implication of inclusive social environments in fostering psychological resilience of disaster-hit communities. The study thus advocates for gender-sensitive support interventions and underscores the need for community-based recovery frameworks for young adults.

Keywords: Social support, coping mechanisms, disaster resilience, gender differences, Thoothukudi floods, young adults

1. INTRODUCTION

Natural calamities, especially floods, tend to affect the psychological well-being of survivors, particularly among young adults facing important transitional developmental stages. There have been multiple natural calamities occurring in the flood-prone coastal district of Thoothukudi in Tamil Nadu, disrupting lives and demanding psychosocial recovery efforts.

It is said that social support provides a major ingredient in building strength during post-disaster recovery. In fact, such support may be emotional, instrumental, informational, or appraisal in nature, all of which vary in ways in which they contribute to the adaptation process (Hobfoll, 2007). After a given calamity strikes a region, the social world functions as a shock absorber of distress through families, peers, or community organizations, enabling people to cope effectively.

The term "coping strategies" generally refers to the ever-changing specific methods by which people manage stressful situations and adversities. These strategies are all situation and person dependent, making them key to understanding how individuals cope after being traumatized. Some argue that social support networks enhance positive coping processes; however, these types of social interactions remain less examined in regional disaster contexts such as that of Thoothukudi.

This study attempts to look at subtle interactions among social support and coping in young survivors of the floods while considering gender differentials, which will help design culturally sensitive and inclusive intervention strategies.

2. REVIEW OF LITERATURE

Social support has generally been cited as a protective factor in mental health in the aftermath of any traumatic event. The buffering effect of peer and family support has been established by studies such as Bokszezanin (2011) and Banks & Weems (2014) in reducing distress after natural disasters. Social support, in association with hope and adaptive coping, was found by Glass et al. (2009) to drastically reduce posttraumatic stress symptomatology of survivors of Hurricane Katrina.

The coping strategies can be classified into three major types: those that are problem-focused (i.e., addressing the source of stress directly), those that are emotion-focused (dealing with the emotional reactions generated by stress), and avoidance (withdrawing from confrontation or even denying it outright). According to the Transactional Model of Stress and Coping developed by Folkman and Lazarus, these responses depend on stressors and perceived resources.

Li et al. (2021) and Tam & Lim (2009) found social support to be important among youth for emotion regulation and reduction of anxiety, particularly during crises such as the COVID-19 lockdown in India. In the context of South Africa, Machisa et al. (2018) found that social support protected against ill outcomes and greatly enhanced resilience among women exposed to intimate partner violence, thereby again validating the cross-cultural applicability of social support paradigms.

Though this has been increasingly proven for the rest of the world, studies are rare in India, especially in disaster-affected areas for young people. Regional studies investigating support systems and their influence on adaptive functioning in flood-affected zones like Thoothukudi, in particular, are missing. This study attempts to fill the gap by grounding these constructs with young Indian adults in post-natural disaster settings.

3. METHODOLOGY

3.1 Aim

To examine the relationship between social support and coping mechanisms among young adult flood survivors in Thoothukudi, Tamil Nadu.

3.2 Research Questions

- What is the relationship between perceived social support and coping mechanisms among young adults?
- Are there gender-based differences in perceived social support and coping mechanisms among young adults?
- Are there differences in perceived social support and coping mechanisms between urban and rural young adults?

3.3 Research Objectives

- To study the relationship between perceived social support and coping mechanisms among young adults.
- To explore gender-based differences in perceived social support and coping mechanisms among young adults.
- To examine urban-rural differences in perceived social support and coping mechanisms among young adults.

3.4 Hypotheses

H₀₁: There is no significant relationship between social support and coping mechanisms.

H₀₂: There is no significant gender difference in social support and coping mechanisms.

H₀₃: There is no significant difference in social support and coping mechanisms between urban and rural respondents.

3.5 Research Design

This study employed a correlational research design. The primary focus was to explore the statistical relationship between the two variables using quantitative methods.

3.6 Sample

A total of 168 young adults (aged 18–30) residing in Thoothukudi district were selected using random sampling. The sample included participants from both rural and urban areas.

3.7 Inclusion Criteria

- Aged between 18 and 30 years.
- Currently residing in Thoothukudi district.
- Experienced at least one flood event.
- Provided informed consent to participate.

3.8 Exclusion Criteria

- Incomplete responses.
- Individuals not residing in the district during a flood event.
- Respondents who declined participation.

3.9 Tools Used

- Social Support Index (SSI)- The scale, which was developed by Fischer et al. in 1982, assesses four constructs: informational, instrumental, emotional, and appraisal-type support. The index consists of 17 items, all scored on a 5-point Likert scale. Reliability of the scale: Cronbach's $\alpha = 0.82$, and validity coefficient: 0.40
- Coping Scale- The tool measures ways of coping under five domains, i.e., problem-focused, emotion-focused, avoidant coping, social support seeking, and meaning-making, adapted from Hamby et al. (2013). Thirteen items on this scale are graded on a 4-point Likert scale. Scale reliability: Cronbach's $\alpha = 0.88-0.91$; scale validity: created using construct validation.

3.10 Data Collection Procedure

The data-gathering method embraced the creation of a Google Form and sharing it on various social media platforms, such as WhatsApp and LinkedIn. The form was divided into three sections: consent form, demographic information, and the two questionnaires. Ethical clearance had been granted, and confidentiality was guaranteed at all times. The data, after collection, were scored and then analyzed in SPSS.

3.11 Statistical Analysis

Data were analyzed using:

- **Descriptive statistics:** Mean, standard deviation, percentage
- **Inferential statistics:**
 - Spearman's correlation (non-parametric)
 - Independent samples t-test
 - Shapiro-Wilk test (normality check)

4. RESULTS AND DISCUSSION

The study has been carried out to assess the relationships between Social Support and Various Coping Mechanisms among Thoothukudiyian Flood Survivors, Tamil Nadu. There were 168 participants, equally divided in terms of gender in the study. Two scales were used: Social Support Index (SSI) built by Fischer et al., 1982, to measure a person's level of social support; and Coping Scale adopted by Hamburger et al., 2013, to measure a person's level of coping mechanisms. The study dealt with comparisons and correlations, gender differences, and rural/urban comparisons. Spearman correlation tests were carried out to analyze the relations between the variables and to record scores. Furthermore, an Independent Sample t-test was used to find significant differences between males and females, rural and urban.

Table 1: Profile of the participants.

Variable	Category	Frequency	Percentage
Gender	Male	79	47.0
	Female	89	53.0
Place of residence	Urban	83	49.4
	Rural	85	50.6

Table 1 gives a participant profile of the study that might show a generally proper balance between gender and residence. We notice an almost equal number of males (47.0%) and females (53.0%), indicating fair representation-in-the-sample of both genders. Just like this, there were almost equal numbers of urban (49.4%) and rural participants (50.6%). While this gender-urban/residence balance may offer varied viewpoints and experiences, it further increases the possibility of generalized findings to both urban and rural user communities.

Table 2 shows the Tests of Normality of variables Social support and Coping Mechanism among young adults.

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SSI	.069	168	.047	.984	168	.046
CS	.090	168	.002	.977	168	.006

a. Lilliefors Significance Correction

From Table 2, it can be noticed that the results of the normality tests for the two variables, "Social Support Index (SSI)" and "Coping Mechanism (CS)," portray a scenario where these data are not normal. Kolmogorov-Smirnova and Shapiro-Wilk tests showed considerable departures from the normality in both variables ($p < .05$). Hence, it can be suggested that the assumption of normalcy of distribution may not hold in the case of social support and coping strategies data in this particular study. Taking into account these distributional characteristics, suitable correlation methods were chosen: Spearman correlation was, hence, used to analyze the relationship between Social support and the Coping mechanism.

Table 3 shows the Mean and standard deviation of variables Social Support and Coping Mechanism among young adults.

	N	Mean	Std. Deviation
SSI	168	3.5343	.54228
CS	168	2.8086	.57013

From Table 3, it can be seen that mean and standard deviation values for the variables "Social Support Index (SSI)" and "Coping Mechanism (CS)" are measures of central tendency and dispersions of the data. The SSI scored an average of 3.5343, with a standard deviation of .54228, implying that fairly moderate levels of social support were reported by the participants with little variation around this mean value. On the other hand, CS had a mean of 2.8086, and a standard deviation of .57013, highlighting a lower average level of coping techniques isolated by the participants, with a slightly greater variability than that had for social support. Hence, these

findings provide insight into the normal levels and distribution of social support and coping techniques in this research population.

Table 4 shows the Correlation between Social Support and Coping Mechanism among young adults.

		SSI	CS
Spearman's rho		Correlation Coefficient	1.000
			.392**
	SSI	Sig. (2-tailed)	.
			.000
		N	168
			168
Spearman's rho		Correlation Coefficient	.392**
			1.000
	CS	Sig. (2-tailed)	.000
			.
		N	168
			168

According to Table 4, the correlation between Social Support Index (SSI) and Coping Mechanism (CS) was statistically significant (Spearman's rho=.392, $p < .001$). It implies a significantly positive correlation between social support and coping mechanisms among the respondents. The higher the social support, the more are coping mechanisms, and vice versa. This seems to further imply that people with higher levels of social support may employ more efficient coping techniques, while those with lower levels may find less favorable ways to cope.

Table 5 shows the comparison of Social Support and Coping Mechanism concerning gender among young adults.

	Gender	N	Mean	Std. Deviation	t-value	sig
SSI	Male	79	3.5458	.43349	0.258	0.797
	Female	89	3.5241	.62553	0.263	0.793
CS	Male	79	2.9056	.50426	2.097	0.037
	Female	89	2.7226	.61282	2.122	0.035

Comparison of Social Support Index (SSI) and Coping Mechanism (CS) scores between genders indicated noteworthy differences. Males ($M = 3.5458$, $SD = .43349$) and females ($M = 3.5241$, $SD = .62553$) recorded similar scores for social support, as indicated by the non-significant t-test value ($t = 0.258$, $p = 0.797$). However, considerable differences in coping scores were observed, with females ($M = 2.7226$, $SD = .61282$) reporting much lower levels of coping mechanisms than males ($M = 2.9056$, $SD = .50426$), as attested to by the significant t-test value ($t = 2.097$, $p = 0.037$). Consequently, the results underscore that while differences exist not in perceived social support but in coping mechanisms between the male and female genders, with females generally perceived to use fewer coping techniques than males.

Table 6 shows the Comparison of Social Support and Coping mechanism concerning place of residence among young adults.

	Place	N	Mean	t-value	sig
SSI	Rural	83	3.4763	-1.375	0.171
	Urban	85	3.5910	-1.372	0.172
CS	Rural	83	2.8082	-0.010	0.992
	Urban	85	2.8090	-0.010	0.992

An overview presented in Table 6 shows the rural-urban comparison of social support and coping mechanisms. It reveals no significant difference. The mean values for social support and coping mechanisms are almost equal for rural and urban dwellers, with all t- and p-values reported as not significant. This means that in the study population, it is probably the location that does not come to play a major role in influencing reported levels of social support or coping techniques.

Table 7: Summary of Hypothesis Testing Results

Hypothesis	Statement	Test Used	Result	Decision
H01	There is no significant relationship between social support and coping	Spearman's Correlation ($\rho = 0.392$, $p < 0.001$)	Significant positive correlation	Rejected

	mechanisms.			
H02	There is no significant gender difference in social support and coping mechanisms	Independent Samples t-test • Social Support: $t = 0.258$, $p = 0.797$ • Coping: $t = 2.097$, $p = 0.037$	• No significant difference in social support • Significant gender difference in coping (males > females)	Partially Rejected
H03	There is no significant difference in social support and coping mechanisms between urban and rural respondents.	Independent Samples t-test	No significant difference	Not Rejected

Table 7 represents the results of hypothesis testing performed to investigate the relationships between social support and coping mechanisms and differences based on gender and place of residence.

Hypothesis 1 (H_{01}) was rejected, indicating a statistically significant and positive association between social support and coping mechanisms; more social support meant more effective coping strategies used by the individual.

Hypothesis 2 (H_{02}) was partially rejected. No significant differences in social support were observed between genders; however, a significant difference was recorded in coping mechanisms, with males having higher coping scores than females.

Hypothesis 3 (H_{03}), stated as working hypotheses when comparing urban-rural samples, was not rejected, implying either social support or coping or both did not differ significantly between urban and rural participants. Yet this does not prove the equality of the two groups - it merely indicates there is no support for a difference.

5. DISCUSSION

The concerned study sought to understand the linkages of social support and coping techniques among the youth of the district Thoothukudi, a coastal district of Tamil Nadu. This study becomes all the more relevant as it focused on post-disaster rehabilitation in which social support is dictated as being imperative in the enhancement of coping mechanisms. By working on this relationship, the study hoped to draw in keeping with insights that could be helpful in setting up effective support programs tailored to the needs of catastrophe victims so that it would instill resilience along with better mental health and community well-being therein.

5.1 Overview of Results

The principal conclusions of the study comprised a positive and significant correlation between social support and coping strategies for young adults. However, it established a large gender difference in coping strategies, with females reporting less than males. The place of residence did not show significant differences neither in social support nor in coping strategies.

Social Support and Coping Mechanisms- Young adults with higher levels of social support tend to have more effective coping mechanisms (Spearman's $\rho=0.392$, $p<0.001$). This is consistent with prior studies that have shown that social support poses a positive effect on coping and mental health outcomes in post-disaster settings (Thoits, 2011; Kaniasty, 2012). Thus, social support would provide emotional comfort, practical help, and informational resources, all of which are needed for effective coping after a disaster. The importance of social support is even more vital in Thoothukudi. The collective experiences of the community with floods in the past may have led to building a culture of mutual aid and support, which could also explain the low levels of social support reported by the community (mean SSI=3.5343). Such community resilience is an invaluable asset in building disaster preparedness and response strategies.

Gender Difference in Coping Style- The research revealed a significant gender difference in coping styles in that males scored higher (mean CS = 2.9056) than females (mean CS = 2.7226), with the t-value being significant ($t=2.097$, $p=0.037$). This finding goes hand in hand with earlier empirical evidence showing that gender plays a role in coping style and efficiency. Men engage more in problem-focused coping strategies, which are generally considered more useful in dealing

with stress and adversity (Tamres, Janicki, & Helgeson, 2002). Women, in contrast, are more inclined to use emotion-focused coping strategies, which might be apt in some cases but would be less effective for dealing with the practical barriers posed by disasters (Ptacek et al., 1992). There may be some factors accounting for the gender difference in coping styles. Cultural and social norms in India, especially in rural areas, may give rise to gender roles and expectations influencing the ways males and females perceive and cope with stress. Meanwhile, women face extra loads and stressors due to child-rearing duties, for instance, restricting their involvement in active coping mechanisms. Tackling such gender-specific topics through targeted interventions may bring about better coping results for women in disaster-affected areas.

Strengthening social support networks require a dual approach of formal and informal strategies. Formal strategies comprise setting up groups for mutual support, counseling services, and community centers capable of serving as sites for socialization and resource dispersal. On the other hand, informal methods might involve encouraging community participation and voluntary efforts as a way to build a communal spirit of assistance. A collaborative effort between local governments and nongovernmental organizations may be a stepping stone to creating these networks. Training local leaders and volunteers on the importance of social support and its suitable coping methods may enable them to assist others in need. Moreover, social support elements should be included in disaster preparedness and response plans, thereby ensuring their consideration at all stages of disaster management.

Gender-Sensitive Interventions Since there are gender differences in coping methods, the results of the study emphasize the urgency of instituting gender-sensitive interventions. Coping methods programs need to be responsive to the unique needs and barriers facing women. This could involve such things as specialized psychological support, special safe venues where women can share their experiences and concerns, and training in practical coping techniques that aid women in addressing the physical and emotional challenges of post-disaster rehabilitation. Also, the existing cultural norms that hinder women from promoting healthy coping mechanisms need to be challenged and transformed. Awareness programs and communal discussions about gender roles and gender equality will aid in changing mindsets toward fostering a supporting environment for women.

6. CONCLUSION

The study examines the effects of social support on coping processes in relation to the Thoothukudi flood survivors. With a positive significant correlation indicating that a wider social support system contributes to coping techniques, development of such networks should, therefore, be a part of catastrophe recovery programs. Because of the existence of gender differences in coping methods, both general and gender-sensitive interventions become necessary to enhance coping outcomes, especially for women. Post-disaster treatments, hence, need to focus on community supports, social cohesion, and gender-related problems. These findings may assist in evolving more resilient and supportive treatment programs in Thoothukudi and other disaster-prone communities, ultimately improving community well-being and mental health-related outcomes.

6.1 Key Findings

The study examines the relationship between social support and coping strategies in young people affected by the 2008 Thoothukudi flood in Tamil Nadu, India.

1. There is a major positive correlation that disentangles from social support to coping methods, wherein greater social support is related to better coping methods.
2. Insomuch as gender differences are significant, males are usually found to possess higher levels of coping than females, thus requiring interventions that would be gender sensitive and cater for females' better support.
3. There was no significant difference in social support or coping methods between urban and rural persons, indicating a similarity in social interaction and availability of resources in both areas.
4. In the study, the need to develop strong social networks to strengthen coping skills was emphasized, which implies that focused gender-sensitive interventions are vital toward the improvement of post-disaster recovery outcomes. Hence, these findings can be utilized to help develop programs that truly enhance resilience and mental health of the disaster-prone populations.

6.2 Implications

The major implications of the research findings lie in the design and implementation of strategies that improve post-disaster recovery in Thoothukudi. Whereas compensatory initiatives when

social support is high might somewhat diminish coping mechanisms, such interventions may have to be rolled out in areas and communities with weak social support systems to promote their resilience and coping abilities against future calamities. This can be achieved through community-based projects that foster social cohesion, offer mutual assistance, or provide opportunities for both emotional and physical support.

6.3 Limitations

The study offered certain insights, but there are several limitations in that regard. To begin with, social support and coping techniques measured by self-report are likely to induce response biases because humans tend to overestimate or underestimate their support and coping. Second, from the use of cross-sectional design, the study has not been able to make any claims about causality regarding the relationship between social support and coping methods. While the sample size used was sufficient for the analyses conducted herein, it may not have captured the whole array of community experiences and perspectives. Perhaps larger and more diverse samples would provide fuller insights into these characteristics.

6.4 Suggestions for further studies

With the study findings as a base, a number of avenues could be explored in future research to better understand various aspects of social support and coping mechanisms in disaster-stricken communities. Longitudinal studies could further shed light on changes in social support and coping mechanisms across time and different phases of catastrophe recovery. The qualitative aspect could explore the nature of social support which works best as well as the contextual factors that influence the coping process. Another direction to explore would be the effectiveness of different intervention strategies that aim at enhancing social support and coping mechanisms. An experimental investigation of the impact of community-based initiatives, counseling, and awareness programs on social support and coping mechanisms may provide empirically based directions to policymakers and practitioners.

References:

- Bokszczanin, A. (2012). Social support provided by adolescents following a disaster and perceived social support, sense of community at school, and proactive coping. *Anxiety, Stress & Coping*, 25(5), 575-592.
- Banks, D. M., & Weems, C. F. (2014). Family and peer social support and their links to psychological distress among hurricane-exposed minority youth. *American Journal of Orthopsychiatry*, 84(4), 341.
- Glass, K., Flory, K., Hankin, B. L., Kloos, B., & Turecki, G. (2009). Are coping strategies, social support, and hope associated with psychological distress among Hurricane Katrina survivors?. *Journal of Social and Clinical Psychology*, 28(6), 779-795.
- Haden, S. C., Scarpa, A., Jones, R. T., & Ollendick, T. H. (2007). Posttraumatic stress disorder symptoms and injury: The moderating role of perceived social support and coping for young adults. *Personality and Individual Differences*, 42(7), 1187-1198.
- Kim, M. Y., Johnson, J. L., & Sawatzky, R. (2019). Relationship between types of social support, coping strategies, and psychological distress in individuals living with congenital heart disease. *Journal of Cardiovascular Nursing*, 34(1), 76-84.
- Li, Y., Peng, J., & Tao, Y. (2023). Relationship between social support, coping strategy against COVID-19, and anxiety among home-quarantined Chinese university students: A path analysis modeling approach. *Current Psychology*, 42(13), 10629-10644.
- Machisa, M. T., Christofides, N., & Jewkes, R. (2018). Social support factors associated with psychological resilience among women survivors of intimate partner violence in Gauteng, South Africa. *mGlobal health action*, 11(sup3), 1491114.
- Pennant, S., C. Lee, S., Holm, S., Triplett, K. N., Howe-Martin, L., Campbell, R., & Germann, J. (2019). The role of social support in adolescent/young adults coping with cancer treatment. *Children*, 7(1), 2.
- Perry, J. C., Fisher, A. L., Caemmerer, J. M., Keith, T. Z., & Poklar, A. E. (2018). The role of social support and coping skills in promoting self-regulated learning among urban youth. *Youth & Society*, 50(4), 551-570.
- Perreault, M., Touré, E. H., Perreault, N., & Caron, J. (2017). Employment status and mental health: Mediating roles of social support and coping strategies. *Psychiatric Quarterly*, 88, 501-514.

- Prati, G., & Pietrantonio, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of loss and trauma*, 14(5), 364-388.
- Reife, I., Duffy, S., & Grant, K. E. (2020). The impact of social support on adolescent coping in the context of urban poverty.
- Tam, C. L., & Lim, S. G. (2009). Perceived social support, coping capability and gender differences among young adults. *Sunway Academic Journal*, 6, 75-88.
- Zhen, R., Quan, L., & Zhou, X. (2018). How does social support relieve depression among flood victims? The contribution of feelings of safety, self-disclosure, and negative cognition. *Journal of Affective Disorders*, 229, 186-192.