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COMPARATIVE ASSESSMENT OF MAJOR FLOOD DISASTERS IN HONG KONG: HISTORICAL ANALYSIS, YOUTH PERCEPTION, AND STRATEGIES FOR ENHANCING RESILIENCE

Research Background

★ Flooding is one of the most disaster-threatening factors in Asian countries

★ Hong Kong faces frequent typhoon-triggered floods, worsened by climate change and urban growth, causing significant impacts

★ Youth (aged 12-18) play a key role in resilience but show major gaps in flood preparedness

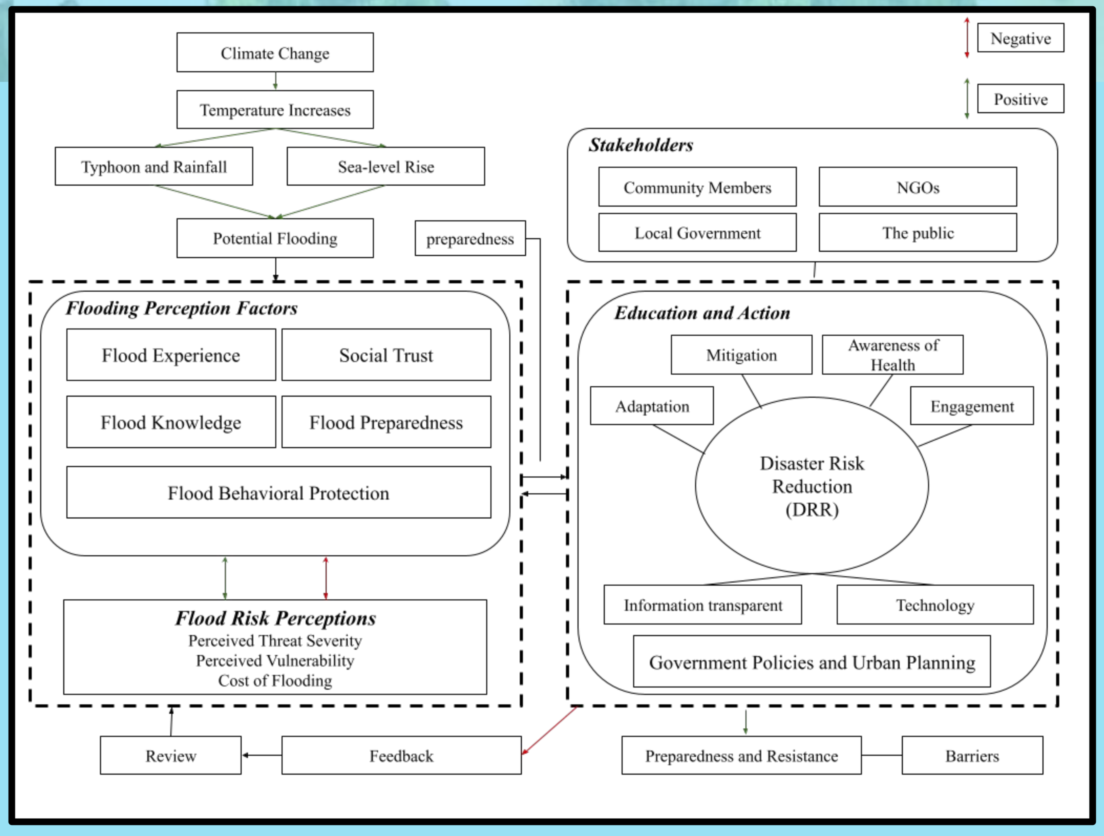
Research Objectives

★ To examine and compare major flooding events associated with typhoons in different Asian countries

★ To assess Hong Kong youth's perceptions, knowledge, and preparedness

★ To evaluate the effectiveness of current flood education and awareness programs for youth in Hong Kong

Conceptual Framework



Research Questions

1. What are the key characteristics of major <u>flooding events</u> and response strategies across Asian countries, and how does Hong Kong's experience compare within this regional context?
2. How do Hong Kong's <u>youth perceive</u> flood risk, and what are their levels of awareness and coping capacities in light of the city's flood management strategies?
3. How are youth influenced by <u>factors</u> such as personal and vicarious experiences, media exposure, and education?
4. To what extent do current flood education and awareness programs in Hong Kong work in raising <u>awareness</u> among youth and increasing their <u>preparedness</u>?

Research Methodology

1. Literature Review
2. Youth-focused Questionnaire
   a. Flood Preparedness
   b. Flood Knowledge
   c. Flood Perceptions
   d. Flood Behavioral Protection
   e. Social Trust

Date Collection

Youth Survey | Historical Analysis

Data Analysis

Quantitative | Qualitative

Combined Findings and Recommendations

Keywords: Flood Resilience / Typhoon Impacts / Youth Perceptions / Urban Flooding / Disaster Management

Major Findings

Emergency Preparedness Knowledge

1. Evacuation Plans:	5.6% Aware	94.4% Unaware		
2. Evacuation Locations:	15.7% Aware	84.3% Unaware		
3. Emergency Supplies:	56.2% Aware	43.8% Unaware		
4. Common Supply Items:	Food (16.9%)	Water (Multiple bundles)	Flashlight (11.2%)	Medicine (12.4%)
Demographic Patterns:	Youth under 16	Female	Upper-middle income	Age 17 (41.2 awareness)
	Low income (<20000)	Males (64.7% awareness)		
Geographic Patterns:	Other districts (Low awareness)			
	Kwun Tong (27.8%)	Sham Shui Po (29.4%)		

Flood Knowledge and Climate Change Awareness

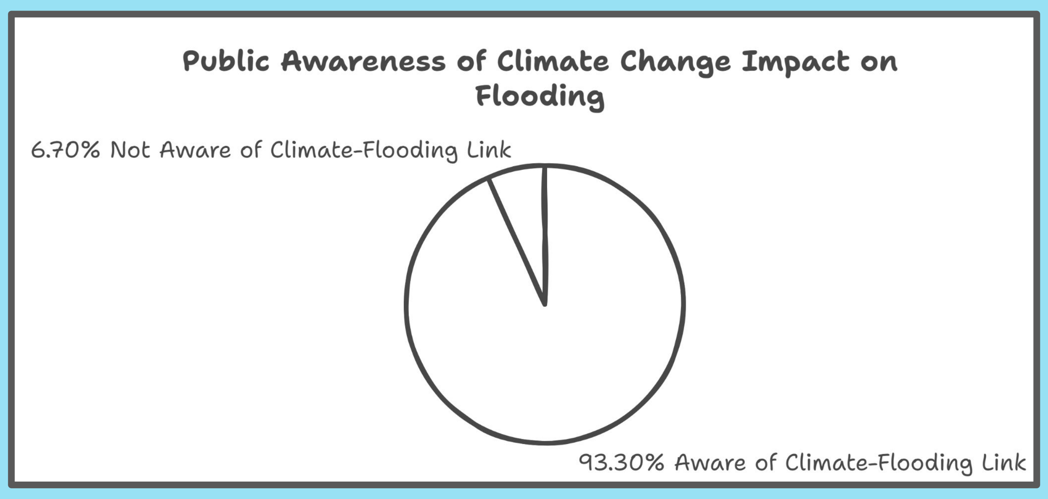
1. Flood Causation Knowledge:	41.6% knowledgeable	χ^2 (3, N=89) = 3.709, p = 0.295
2. Climate Change Impact Awareness:	93.3% aware	χ^2 (3, N=89) = 3.048, p = 0.384
Demographic Influences:	No significant income effect	No significant age effect
	Higher knowledge at age 16-17 (32.4%)	

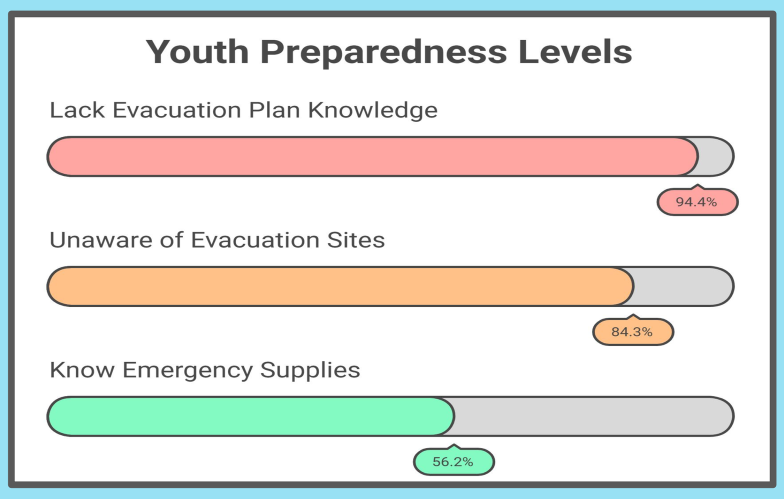
Social Trust and Risk Perception Relationships

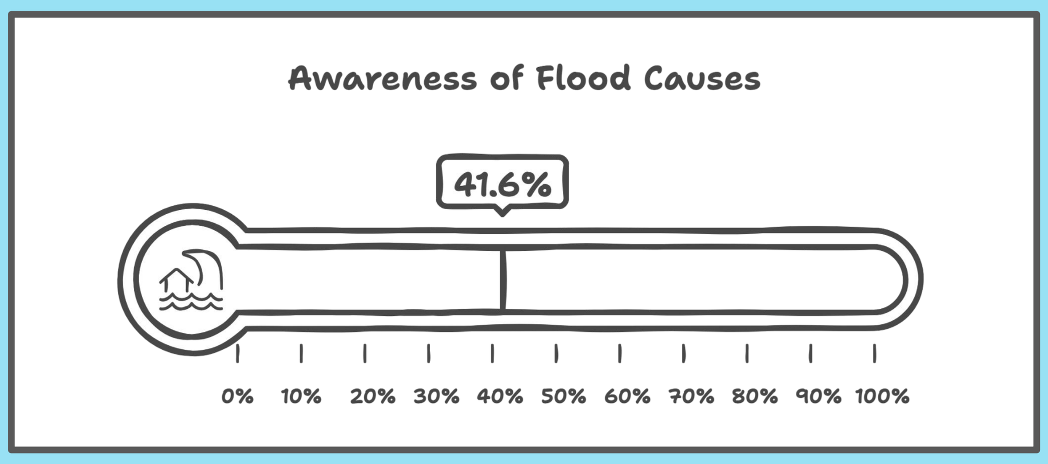
1. Trust Network Correlations:	Family ↔ Friends (r=0.673, p<.001)	Friends ↔ Neighbors (r=0.563)	
	Family ↔ Neighbors (r=.472)		
2. Risk Perception Correlations:	Economic Losses ↔ Social Stability (r=.550, p<.001)		
	Economic Losses ↔ Damage Potential (r=.612, p<.001)		
	Crisis Possibility ↔ Economic Loss (r=.086)		
Trust Levels (Mean Scores):	Family: 4.03	Friends: 3.74	Volunteers: 3.65
	Traditional Media: 3.42	Government: 3.42	NGOs: 3.37
	Online Media: 3.30	Neighbors: 2.98	Colleagues: 2.81

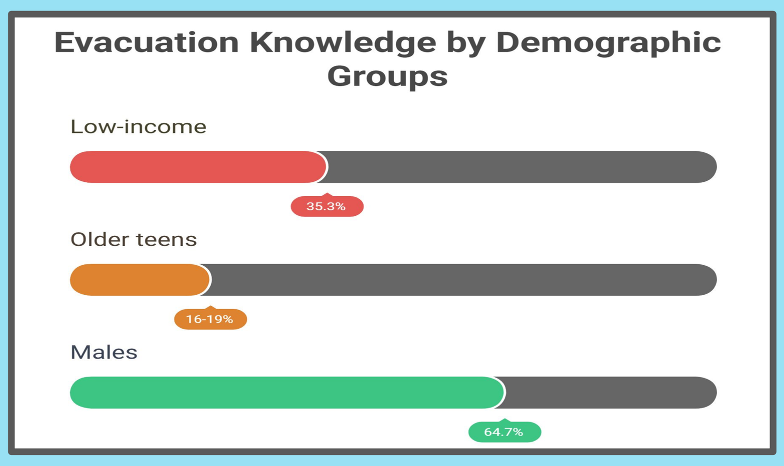
Gender Analysis of Risk Perception and Protective Behaviors

1. Flood Risk Perception:	χ^2=7.509, df=8, p=.483	No significant differences	
2. Preparedness Intentions:	χ^2=1.898, df=6, p=.929	Female: 97.4% rated ≥ 3	Male: 94% rated ≥ 3
3. Infrastructure Effectiveness:	χ^2=1.434, df=8, p=.994	Modal response = 3 for both genders	
4. Information Access:	χ^2=5.975, df=8, p=.650	Female: 47.4% unsure	Male: 32% unsure
5. Insurance Purchase Intentions:	χ^2=3.371, df=4, p=.498	Female: 39.5% willing	Male: 54% willing









Critical preparedness gaps exist among youth, with demographic variations suggesting targeted education needs

Direct flood experience did not enhance risk perception or prevention motivation, suggesting alternative influences on youth risk awareness

Personal trust networks show stronger internal correlations than institutional connections

Non-significant gender differences across all variables contradict previous research, suggesting shared educational experiences may override traditional gender-specific responses

Recommendations

★ Tech Innovations	Youth-Led Initiatives
★ Community Tech	Community Initiatives
★ School Programs	Policy Focus

Conclusion

★ Youth lack flood preparedness knowledge, needing targeted education
★ Education shapes youth risk perception more than flood experience
★ Economic concerns drive youth flood risk assessments
★ Demographics affect preparedness but not risk perception or behavior
★ Gender-neutral disaster education suits Hong Kong youth