

The Influence of Self-Efficacy, Sense of Community and Past Experience on Flood Risk Awareness and Preparedness

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Developing countries are frequently affected by severe floods and their level of flood risk preparedness is often minimal. This situation is not helped by a lack of research exploring the factors that influence flood risk awareness and preparedness among citizens in developing countries. To address this issue, we conducted a study that examined the relationship between self-efficacy, sense of community, experience, and flood risk preparedness in the developing country of Jordan. Our questionnaire was completed by 300 adult residents in the four Jordanian cities of Amman, Madaba, Ma'an and Balqa, each of which had been severely impacted by flood disasters in 2018 and 2019. Multiple regression analysis identified a significant positive relationship between flood risk preparedness and self-efficacy, sense of community, and experience. The strongest of these relationships was with self-efficacy, which had a correlation of $r = 0.481$, $p < 0.01$. This particular relationship may have existed because individuals with higher self-efficacy are often those who are better empowered to instigate a greater quality and quantity of actions against disasters. Also, as indicated by previous research conducted in other contexts, individuals with higher self-efficacy may have a greater ability to self-regulate their behaviours, have more confidence to participate in riskier situations and, therefore, may be better equipped to handle the negative emotions that might arise during floods. Our results also indicated that many of our Jordanians respondents did not take flood risk warnings seriously and often ignored governmental risk communications, possibly because trust in governmental entities and the perceived effectiveness of risk warning and communication systems are relatively low in Jordan. Our findings suggest that flood risk preparedness in Jordan could be improved by increasing self-efficacy and risk awareness. This might be achieved via a variety of communication channels and training approaches, as well as through the development of local and national flood emergency plans that can be established and implemented by individuals and regional communities. Our recommendations for further research include quantitative or qualitative studies to understand better the connection between flood risk preparedness and training, and determining how to improve disaster risk warning systems for individuals and communities in developing countries.

Keywords: Experience, Flood risk, Natural hazards, Self-efficacy, Sense of community