Determination and Prioritization of Public Library Services in Disasters

Yaghoub Norouzi[*1], HamidReza Radfar [2], Naiere Jafarifar [3]

Abstract

Purpose: This study aims to identify and prioritize the services provided by public libraries during disasters, focusing on their roles before, during, and after such events.

Methodology: The research, applied in purpose and descriptive-survey in method, utilized the fuzzy Delphi technique and the Best Worst Method (BWM) to analyze the opinions of 62 public library librarians and 11 library science experts in Iran.

Findings: The resulting model outlines 33 services categorized into pre-disaster (14 services), during-disaster (12 services), and post-disaster (7 services). Services during disasters were deemed the most critical, followed by pre-disaster and post-disaster services. Key services include implementing mobile health ambassador libraries, forming voluntary campaigns among librarians, and establishing specialized groups to assess immediate library needs.

Conclusion: Public libraries hold a vital role in disaster response and recovery due to their mission of equal access and community support. This study proposes a localized, actionable model of library services to enhance disaster management in Iran.

Value: By addressing the unique needs of communities during crises, public libraries can significantly contribute to disaster preparedness and recovery, reinforcing their role as safe havens and resource hubs.

Keywords: *Service Model Design, Public Library Services, Disasters, Crisis Management*

1. Professor, Knowledge and Information Science Department, University of Qom, Qom, Iran (Corresponding Author) ynorouzi@gmail.com
2. Assistant Professor, Department of Asian Cultural Documents Studies, Research Institute of Humanities and Cultural Studies, Tehran, Iran.
3. Master in Knowledge and Information Science; Department of Knowledge and Information Science; Qom University of Medical Sciences; Qom. Iran.

Extended Abstract

Introduction: Public libraries, numbering over 320,000 globally, are pivotal in providing equitable access to resources and serving as community safe spaces. Their role extends beyond conventional services, particularly in disaster-prone regions like Iran, the sixth most disaster-vulnerable country globally. Libraries often serve as accessible, critical facilities, even surpassing healthcare centers in some areas. Recognizing their unique potential, this study explores the determination and prioritization of library services in disaster contexts.

Purpose: The primary aim is to design a comprehensive model that identifies and prioritizes public library services during disasters. The model emphasizes preparation, immediate response, and recovery, ensuring libraries effectively meet community needs in crisis scenarios.

Methodology: This applied research adopted a descriptive-survey approach. Using the fuzzy Delphi method, input from 62 public library librarians helped identify essential services. Subsequently, 11 library science experts prioritized these services using the Best Worst Method (BWM).

Findings: The study's findings highlight 33 essential services, categorized into three phases:
1.Pre-disaster (14 services):
Executive Field: Key actions include forming national and local disaster management teams for libraries and ensuring preparedness for swift disaster response.
Educational Field: Conducting training programs for librarians on disaster preparedness.
Informational Field: Establishing digital repositories of disaster-related resources such as e-books, podcasts, and guides.
2. During-disaster (12 services):
Executive Field: Priority services include implementing mobile health ambassador libraries, forming volunteer groups among librarians, and establishing specialized teams for immediate library needs assessment.
Cultural Field: Developing activities like entertainment and play for children to alleviate trauma and support students' return to education.
Informational Field: Setting up crisis information hubs to disseminate reliable and timely updates.
3. Post-disaster (7 services):
Executive Field: Facilitating collaborative activities involving medical librarians, Red Crescent workers, and community leaders to aid recovery efforts.
Cultural Field: Hosting events to honor disaster responders, conducting group sessions for mental health support, and organizing workshops to encourage community rebuilding efforts.
Documentation Field: Archiving digital records of disaster-related actions and resources for future reference.

In the pre-disaster section	In the disaster section	In the post-disaster section
public library services • in the executive field • in the education field • in the information field	**public library services** • in the executive field • in the cultural field • in the information field	**public library services** • in the executive field • in the cultural field • In the documentation field

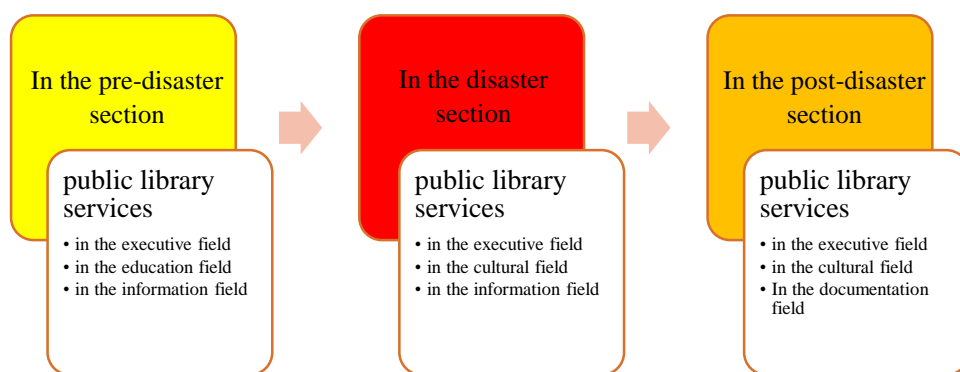**Table 1. The most important sub-index in the model**

Steps	weight Indicator	rank	context	Actions	Final weight sub-index	rank
Before the crisis	0/24	2	Executive	Taking the necessary measures to prepare public libraries to face the crisis	0/2856	5
			Educational	Holding crisis preparation courses for librarians	0/2695	7
			Informational	Creating a digital resource base of books, podcasts, brochures, and electronic guides	0/2357	12
crisis	0/60	1	Executive	Implementation of the Health Ambassador Mobile Library project	0/3843	1
			Cultural	Implementation of children's entertainment plan in crisis areas	0/2011	17
			Informational	Designing and developing the application system to increase resilience and obtain reliable news for those affected by the crisis	0/2212	15
After the crisis	0/15	3	Executive	Cooperation of the library with religious missionaries, medical librarians, Red Crescent rescuers	0/1312	30
			Cultural	Holding a ceremony honoring the heroes in the crisis	0/1443	27
			Documentation	Preparation of digital archive of documents of information sources used and actions taken.	0/1924	21

Services during disasters received the highest priority, emphasizing immediate and direct community support.

Pre-disaster measures ranked second, highlighting the importance of preparedness, while post-disaster services focused on recovery and resilience-building.

Among all services, implementing the mobile health ambassador library project emerged as the most critical, followed by forming volunteer campaigns and specialized assessment groups.

Conclusion: The study's model offers a comprehensive framework for enhancing the disaster management capabilities of public libraries in Iran. By adopting these localized strategies, libraries can better serve their communities, ensuring they remain essential pillars of support during and after crises.

Value: Public libraries, with their core mission of free and equal access to resources, are uniquely positioned to aid communities during crises. This study provides a structured model for libraries in Iran, enabling them to localize and implement disaster-specific services effectively. The findings underscore the potential of libraries to go beyond traditional roles, acting as key players in disaster management and community resilience.

References

Ardalan, A. & et al. (2022). *Household Preparedness Training Guide for Disasters, Tehran: Office of Disaster Risk Reduction and Management,* Tehran: Ministry of Health, Treatment and Medical Education. [In Persian]

Baybordi, A., Bahri Sales, J., Jabbarzadeh Kangarloo, S., & Zavari Rezayi, A. (2022). Fuzzy Delphi algorithm and fuzzy DEMITEL in Designing and explanation of Relational capital in Banks. *Governmental Accounting*, *8*(2), 81-90. doi: 10.30473/gaa.2022.59805.1498 Norouzi, Y., & JafariFar, N. (2022). Public Library Extracurricular Services in Disaster: A Systematic Review of Writings at the International Conference on Design and Development of Public Library Services; Patterns, Experiences & Ideas, Iran, Shiraz. https://civilica.com/doc/1670369/ [In Persian]

Castillo, M. & Ford, D. (2014 November 18). *Governor Declares State of Emergency in Ferguson*. CNN.

Chiochios, M.E. (2016). The Tweets heard around the world: Ferguson Municipal Public Library's Twitter use around the 2014 civil unrest and its role in supporting community disaster resilience. Master's Thesis. In L.S degree

Davis, A. S., & Jankow, C. (2019). On why library workers are well-suited to serve during disasters. *Collaborative Librarianship*, *11*(1), 5-10.

Flaherty, M. G. (2016). *Here, there and everywhere: Disasters and public libraries.*

Garner, J., Hider, P., Jamali, H. R., Lymn, J., Mansourian, Y., Randell-Moon, H., & Wakeling, S. (2021). 'Steady ships' in the COVID-19 crisis: Australian public library responses to the pandemic. *Journal of the Australian Library and Information Association*, 1-23. https://doi.org/10.1080/24750158.2021.1901329

Hassanpour, H., & Nasri, A. (2023). Identification and techniques of psychological warfare using fuzzy Delphi combined method and network analysis. *Journal of Defense and Technology*, 5 (4), 177-208. Dor:20.1001.1.28212606.1401.5.16.6.0 [In Persian]

Hill, B. (2010). Diagnosing co-ordination problems in the emergency management response to disasters. *Interacting with Computers*, *22*(1), 43-55. https://doi.org/10.1016/j.intcom.2009.11.003

Hodgetts, D., Stolte, O., Chamberlain, K., Radley, A., Nikora, L., Nabalarua, E., & Groot, S. (2008). A trip to the library: Homelessness and social inclusion. *Social & Cultural Geography*, *9*(8), 933-953. https://doi.org/10.1080/14649360802441432

Ilo, P. I., Izuagbe, R., Mole, A. J., & Ekwueme, L. (2018). Measuring disaster preparedness and response practices in university libraries in Nigeria: The role of disaster equipment. *International Journal of Disaster Risk Reduction*, *31*, 85-91. https://doi.org/10.1016/j.ijdrr.2018.04.007

Kam, M., & Lee, J. Y. (2013). A comparative study of cultural programs offered by public libraries and other regional public service institutions. *Journal of the Korean BIBLIA Society for library and Information Science*, *24*(4), 197-215. http://dx.doi.org/10.14699/kbiblia.2013.24.4.197

Khademizadeh, S., Farajpahlou, H., & Mohammadi, Z. (2020). Investigating the Readiness of Iranian Public Libraries in Confronting Dust Crisis. *Library and Information Sciences*, *23*(2), 117-136. doi: 10.30481/lis.2020.216377.1671 [In Persian]

khajeali jahantighi, Z., & omidkhoda, M. (2022). Identifying Health-Based Services in Iranian Public Libraries during the Corona Crisis (Corona and Post-corona era): Public Health Information System. *Journal of Studies in Library and Information Science*, *14*(Special Issue: COVID-19), 54-72. doi: 10.22055/slis.2022.34561.1779 [In Persian]

Klaebe, H. (2013). Facilitating local stories in post-disaster regional communities: evaluation in narrative-driven oral history projects. *Oral History Journal of South Africa*, *1*(1), 125-142.

Kosciejew, M. (2020). The coronavirus pandemic, libraries and information: a thematic analysis of initial international responses to COVID-19. *Global Knowledge, Memory and Communication*.70 (4-5), 304-324. https://doi.org/10.1108/GKMC-04-2020-0041

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel psychology*, *28*(4), 563-575.

Lee, P. C. (2024). Unveiling Community Resilience: The Integral Role of Public Libraries. *Journal of Library Administration*, 1-23. https://doi.org/10.1080/01930826.2024.2305072

Lee, S. Y. (2004). Strategies for improving cultural services of public libraries. *Journal of the Korean Society for Library and Information Science*, *38*(3), 23-43. https://doi.org/10.4275/KSLIS.2004.38.3.023

Marjani, A. (2012). Identifying and introducing the main natural and unnatural factors damaging libraries: recommendations and strategies. *Shamseh: Electronic publication of the Organization of Libraries, Museums and Documents Center of Astan Quds Razavi*, 5 (18), 1-20. [In Persian]

Monroy-Fraustro, D., Maldonado-Castellanos, I., Aboites-Molina, M., Rodríguez, S., Sueiras, P., Altamirano-Bustamante, N. F., & Altamirano-Bustamante, M. M. (2021). Bibliotherapy as a Non-pharmaceutical Intervention to Enhance Mental Health in Response to the COVID-19 Pandemic: A Mixed-Methods Systematic Review and Bioethical Meta-Analysis. *Frontiers in public health*, *9*, 42. https://doi.org/10.3389/fpubh.2021.629872

Newman, J. (2007). Re-mapping the public: Public libraries and the public sphere. *Cultural Studies*, *21*(6), 887-909. https://doi.org/10.1080/09502380701470916

Norouzi, Y., & JafariFar, N. (2022). Public Library Extracurricular Services in Disaster: A Systematic Review of Writings at the International . Shiraz. https://civilica.com/doc/1670369/ [In Persian]

Rosenfeld, K. (2015, April 28) *Baltimore Libraries stay open through riots.* MTV.

Rostami, M., Rahmani, M., Chakhmahi, N., Fathi Shivai, F. (2014, May 9). Investigating the building safety situation in public libraries in Tehran, National Conference on Safety in Libraries. Tehran. https://civilica.com/doc/454362/ [In Persian]

Sadr Momtaz, N., Tabebi, S. J., & Mahmode, M. (2007). A comparative study in disaster planning in selected countries. *Tehran University Medical Journal*, *65*(Suppl 1), 14-19. [In Persian]

Saif, A. A. (2021). Educational measurement, assessment, and evaluation. Doran. [In Persian]

Soehner, C., Godfrey, I., & Bigler, G. S. (2017). Crisis communication in libraries: Opportunity for new roles in public relations. *The Journal of Academic Librarianship*, *43*(3), 268-273. https://doi.org/10.1016/j.acalib.2017.03.003

Summers, S., & Buchanan, S. (2018). Public libraries as cultural hubs in disadvantaged communities: Developing and fostering cultural competencies and connections. *The library quarterly*, *88*(3), 286-302. http://dx.doi.org/10.1086/697707

Vucenovic, T. (2021). Communication through Social Media: Blogs and Wikis in Libraries. *Qualitative and Quantitative Methods in Libraries*, *10*(3), 315-328.

Wang, S., Bressington, D. T., Leung, A. Y. M., Davidson, P. M., & Cheung, D. S. K. (2020). The effects of bibliotherapy on the mental well-being of informal caregivers of people with neurocognitive disorder: A systematic review and meta-analysis. *International journal of nursing studies*, *109*, 103643. https://doi.org/10.1016/j.ijnurstu.2020.103643v

Yang, S. Y., & Cha, M. K. (2011). A study on the model of multicultural services in public libraries. *Journal of the Korean Society for Library and Information Science*, *45*(1), 311-332.

Yang, S., & Ju, B. (2021). Library support for emergency management during the time of natural disasters: Through the lens of public library Twitter data. *Library & Information Science Research*, *43*(1), 101072. https://doi.org/10.1016/j.lisr.2021.101072

Young, E. (2018). The role of public libraries in disasters. *New Visions for Public Affairs*, *10*, 31-38. https://doi.org/10.1016/j.lisr.2021.101072

Zarei Savaroklai, Monica; Delice, Mitra (2015, May 9). *Determination of Physical Security and Safety in Public Libraries in Mazandaran Province, National Conference on Safety in Libraries.* Tehran. https://civilica.com/doc/390217/ [In Persian]