Practice and Reflection on Emergency Library Services During Public Health Emergencies: A Case Study of the Beijing Municipal Party School Library (Postprint)

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Abstract

[Purpose/Significance] By exploring practical solutions for library emergency services under public health emergencies, this study provides a feasible reference framework for libraries in handling emergency events, enhances librarians' information literacy and emergency response capabilities, and further improves collection resource development strategies. [Method/Process] Taking the resource service practices of the Library of Beijing Municipal Party Committee School during a public health emergency as a case study, this paper comprehensively analyzes the exploration and practice of library emergency services under such circumstances from the perspectives of current status and deficiencies in existing library emergency services, remote collaborative cooperation models for librarian teams, and the formulation, design, and implementation of emergency service strategies, while proposing several issues and recommendations. [Results/Conclusion] The Library of Beijing Municipal Party Committee School, starting from user needs during public health emergencies, constructed multiple multi-dimensional emergency service cases based on the local context, effectively enhancing the library's capacity to provide better services to society and improving the information literacy of library users, thereby driving further development of library resource construction.

Full Text

Emergency Library Services During Public Health Emergencies: A Case Study of Beijing Municipal Party Committee School Library

Abstract

[**Purpose/Significance**] This paper explores practical solutions for library emergency services during public health emergencies, offering a feasible reference framework for libraries responding to crisis events. The study aims to enhance librarians' information literacy and emergency response capabilities while improving collection development strategies. [**Method/Process**] Using the resource service practices of Beijing Municipal Party Committee School Library during the COVID-19 pandemic as a case study, this paper comprehensively analyzes the exploration and implementation of emergency library services from multiple perspectives: current status and deficiencies of existing library emergency services, remote collaborative teamwork models, and the formulation, design, and implementation of emergency service strategies. [**Result/Conclusion**] Responding to user needs during the public health emergency, the library constructed multiple comprehensive emergency service cases tailored to the local context, effectively enhancing its capacity to serve society and improving users' information literacy, thereby driving further development of library resource construction.

Keywords: library; public health emergency; emergency resource service

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A public health emergency refers to a sudden occurrence that causes or may cause serious harm to public health, including major infectious disease outbreaks, unexplained group illnesses, major food or occupational poisoning, and other events that severely affect public health [1]. Examples include the 2003 SARS outbreak and the COVID-19 pandemic that emerged at the end of 2019. As resource service hubs, libraries play an important role in social life during public health emergencies and often need to integrate all relevant resources to serve society [2]. Beyond providing physical space for shelter and lost-person contact services [3], libraries must also consider how to collect and process information effectively to provide intelligence materials to the public and improve users' information literacy.

Currently, domestic libraries have limited case studies on emergency services during public health emergencies. Although such events are relatively rare, libraries—as public spaces—face inherent risks and must strengthen crisis awareness by developing effective and feasible emergency response plans to ensure preparedness [4]. This paper examines the COVID-19 pandemic as a typical public health emergency, using the rapid response and emergency service implementation of Beijing Municipal Party Committee School Library as an entry

point to analyze how libraries can fulfill their functions during such crises and offers recommendations on how libraries can effectively serve as resource service providers throughout the process.

1. Research Status of Library Emergency Services

To investigate domestic libraries' resource and service responses to public health emergencies, this study conducted a literature review from both theoretical and practical perspectives. Six search terms were selected: "library," "sudden," "emergency," "service," "resource," and "intelligence." The following search expression was constructed in CNKI's professional search mode: SU='library' AND (SU='sudden' OR SU='emergency') AND (SU='service' OR SU='resource' OR SU='intelligence'). The search was conducted on March 20, 2020 (with a supplementary search on June 11), yielding 144 results, including 41 articles from core journals and CSSCI sources.

In practice, Shanghai Normal University Library and Central China Normal University Library implemented characteristic emergency services such as "closed library but not closed resources, closed library but not closed services" during the COVID-19 pandemic [5-6]. Zhang Jinrong discussed the post-disaster relief case of the Sichuan Provincial Library Society following the May 12 earthquake, focusing on donation and recovery efforts and establishing a relevant post-disaster recovery thematic database [7]. The PLA Medical Library quickly compiled and printed the *Wenchuan Post-Earthquake Disease Prevention Knowledge Album* and *Essential Health and Epidemic Prevention Information* for distribution to disaster areas after the 2008 Wenchuan earthquake [8]. He Xi'an et al. discussed the "Emergency Service Special Plan" formulated by the National Science Library (Chinese Academy of Sciences Documentation and Information Center) in response to the July 5, 2009 terrorist attacks in Urumqi, Xinjiang [9], which provided targeted library print and electronic resource services for Xinjiang Institute (Station) of the Chinese Academy of Sciences. Internationally, Song Dan et al. analyzed U.S. natural disaster emergency management intelligence services, examining cases from the U.S. National Library of Medicine and Gulf Coast public libraries [10]. Representative practices included establishing a Disaster Information Management Resource Center (DIMRC), building information exchange websites, and developing Disaster Information Specialization Programs (DISP).

Theoretically, domestic and international theoretical systems for emergency intelligence remain immature. While preliminary theoretical frameworks centered on decision-making, systems, and management have emerged abroad, domestic research has not yet formed a recognized theoretical system [11]. Some scholars have proposed the "QRC model" for emergency decision-making in sudden incidents, where "Qing" (intelligence) refers to information generated and needed for emergency decision-making, "Ren" (people) refers to personnel involved in emergency decision-making, and "Ce" (policy) refers to decisions made to respond to and handle sudden incidents [12], comprehensively summarizing the

relationships among three key entities in emergency services. Guo Hua proposed that the emergency management intelligence platform is the core of the emergency management intelligence system, providing public intelligence services for various emergency management entities and comprising two components: emergency management intelligence resources and emergency management intelligence services [13], offering valuable insights for subsequent emergency service practice research. With the rapid development of the digital era, digital resource aggregation methods and technologies in library and information science can provide rich theoretical references and actionable recommendations for dynamic aggregation research on intelligence resources for sudden incidents [14]. Based on lifecycle theory, some researchers have divided emergency response into three stages—pre-event, during-event, and post-event—from a temporal perspective, noting that intelligence flow content varies across different stages [11]. Correspondingly, foreign scholars P. Reynolds and I. Tamanaha proposed different roles and responsibilities for intelligence services across four stages of emergency management [15]. Other scholars have suggested constructing a knowledge base system for emergency intelligence management systems [16] to ensure orderly, rapid, and efficient supply of intelligence resources for emergency response.

While library and intelligence scholars have extensively discussed emergency response and proposed practical solutions, challenges persist, including weak emergency management intelligence analysis capabilities, poor intelligence sharing across departments, information silos, and fragmentation in values, conceptual frameworks, institutional structures, operational mechanisms, and financial support for emergency intelligence systems [17].

2. Emergency Service Practice at Beijing Municipal Party Committee School Library

2.1 Emergency Service Strategy

2.1.1 Remote Collaborative Cooperation Model Providing emergency information services represents both an adaptation to the broader trend of informatization in emergency response and an effective pathway for libraries to transform and upgrade their services [18]. As internet technology has evolved, library emergency response methods have varied across different public health emergencies. In the era of underdeveloped networks, libraries primarily offered book donation services and centralized print literature reading services. However, by the end of April 2019, China's mobile internet users had reached 1.29 billion [19]. Public health emergencies generate massive amounts of information before, during, and after the event. On one hand, libraries must screen, clean, process, and present this vast information to users; on the other hand, governments activate different response levels depending on the situation. During COVID-19, multiple Chinese provinces launched Level I responses for major public health emergencies [20], leading to library closures and forcing librari-

ans to work from home. To enable efficient integration of massive information resources in remote environments, this paper proposes a remote collaborative cooperation model for library emergency services, illustrated in Figure 1 [Figure 1: see original paper].

This remote collaborative model consists of three main components: resource development leaders, subject librarians, and technical librarians. Resource development leaders, headed by school leaders in charge of the library, make decisions remotely via online meeting platforms and communicate them promptly to the subject librarian team. The subject librarian team comprises librarians from diverse disciplinary backgrounds who collect pandemic-related materials from home, discuss 阶段性成果 via regular Tencent meetings, submit processed materials to WeChat groups for review, deduplication, and integration, and finally deliver formatted data to technical librarians responsible for system development. Technical librarians develop different presentation solutions based on various data formats, feedback non-compliant data to subject librarians for reprocessing via WeChat, and promptly showcase 阶段性开发成果 to resource development leaders and subject librarians. By continuously collecting user feedback for system optimization, this model improves resource utilization and ensures successful emergency service implementation. Beijing Municipal Party Committee School Library implemented relevant emergency service practices based on this model.

2.1.2 Goal Setting During public emergencies, one of libraries' responsibilities is to provide decision-making information for governments [21], which depends on emergency resource construction. Resource construction serves different audiences across different public health emergencies, typically including: (1) national, government, and institutional levels; (2) universities and research institutes; and (3) frontline researchers. Therefore, setting corresponding service goals based on the target audience ensures effective resource construction. Goal setting also guarantees precision and specificity in library resource construction and provides direction for subject librarians to collect specific information, preventing them from getting lost in information overload.

Following the COVID-19 outbreak, Beijing Municipal Party Committee School Library, as the Beijing Municipal Situation Research Center, responded promptly. Library leaders established an emergency resource development team with subject librarians. Recognizing that resource construction advancement requires strong support from school leadership, library leaders actively communicated with responsible school officials to develop relevant plans and thoroughly discussed the library's role during public health emergencies. The goals were ultimately set as follows: (1) better support teaching and research personnel in instruction and research; (2) integrate complex, diverse, and massive disorganized online information for the public; and (3) enhance subject librarians' emergency response capabilities and information literacy, providing direction for specific practical applications.

2.1.3 Content Carrier Selection Public health emergencies often involve rumor propagation alongside media coverage, making official channels particularly crucial. During COVID-19, the State Council, relevant ministries, and the Beijing municipal government attached great importance to the pandemic, issuing authoritative documents and policies that effectively filtered out false information compared to online 杂乱信息. This thematic section was assigned to subject librarians with relevant disciplinary backgrounds to ensure authoritative and complete data sources.

In the mobile internet era, when public health emergencies occur, online media and other information carriers typically respond extremely rapidly, while libraries and documentation service institutions often lag behind after information collection, screening, and processing. Therefore, selecting appropriate content carriers becomes a critical consideration. In the traditional internet era, desktop websites were the preferred content publishing platform. However, under the impact of the fan economy model, network traffic has increasingly shifted to mobile clients such as smartphones and tablets. The rapid development of 4G and mobile internet technologies has spawned numerous self-media platforms, including Weibo, WeChat Official Accounts, Dayu Account, Toutiao, and Baijia Account, with social platforms like Weibo and WeChat Official Accounts offering faster information updates and larger user traffic.

To ensure rapid and convenient distribution of emergency resources, Beijing Municipal Party Committee School Library, after thorough investigation of various platforms, selected WeChat Official Accounts as the primary content dissemination channel. Since its establishment in 2015, the library's WeChat Official Account has accumulated numerous followers. Articles sent to followers via the Official Account can be secondarily disseminated through WeChat group forwarding and Moments sharing, leveraging WeChat's massive user base for content distribution. Due to WeChat Official Account article restrictions on external links, the library combined this with a mobile Web page for diversified, in-depth content presentation, uploading the webpage to the public network and linking it to the Official Account menu to create a long-term, effective update mechanism.

2.2 Emergency Service Cases

After COVID-19 spread rapidly in Beijing and other areas, Beijing Municipal Party Committee School Library responded quickly based on its own circumstances. As the library and information resource center of the Party school, the library has implemented a subject librarian system since 2018, receiving strong support from school leadership. It now has 14 subject librarians covering multiple disciplinary fields. Leveraging the library's geographical and talent advantages in the capital, library leaders organized subject librarians to form an emergency resource development team. With a goal-oriented approach, they developed a Beijing-focused pandemic prevention and control thematic data compilation plan. Starting from key concerns of Party school faculty, researchers,

and the Beijing public, and through subject librarians' diligent work during the pandemic, the team continuously explored readers' information and reading experience needs. They ultimately decided to integrate and present information across five dimensions: policy documents, leadership footprint, Beijing's work resumption information, Beijing's all-sector anti-epidemic actions, and a Beijing epidemic prevention timeline. Teams of two to three subject librarians were responsible for information collection, cleaning, and processing, with final submission to technical librarians for continuous real-time updates throughout the pandemic, forming a long-term, effective service mechanism.

2.2.1 Policy Documents Special Topic As of June 15, 2020, the library had collected 214 Beijing policy documents and 312 State Council and ministry policy documents. Content presentation prioritized WeChat Official Account article promotion, with PDF original documents linked in the article and mobile HTML5 page access as a secondary channel to ensure timely data delivery (see Figure 2 [Figure 2: see original paper]).

2.2.2 Beijing Leadership Footprint Special Topic Collecting and tracking the footprint of relevant Beijing municipal leaders helps identify government priorities in pandemic prevention and control, demonstrating the Party and government's spirit of close connection with the people during critical moments. As the nation's political center, Beijing showed strong determination to control the epidemic. After extensive team discussion and approval from higher-level leadership, the team decided to focus on the Beijing Municipal Party Secretary and other leaders as data samples. Subject librarians comprehensively collected information on leaders' inspection locations, content, and related reports since January 23, 2020.

To ensure readers could quickly and clearly understand inspection locations, this topic used map nodes for presentation. Taking Beijing Party Secretary Cai Qi as an example, 56 footprint records were collected by June 15, 2020 (see Figure 3 [Figure 3: see original paper]). Clicking map nodes reveals inspection content and dates, with source tracking via clickable titles linking to original articles.

2.2.3 Beijing Work Resumption Information Special Topic Economic data has been a major focus during the pandemic prevention period. Following the Level I public health emergency response activation in Beijing, enterprises, institutions, and individuals implemented various isolation measures. The municipal Party committee and government demonstrated foresight in fully curbing virus transmission. As the epidemic gradually subsided, the government promptly signaled the importance of balancing pandemic control with economic development. Relevant enterprises resumed work and production in an orderly manner while implementing pandemic prevention measures, striving for "dual victory" in both control and development. Subject librarians with economics backgrounds collected and organized central and Beijing work resumption policies from January 29 to June 15, 2020, and 梳理了 the overall work resumption

situation in Beijing since February, as well as conditions in key industries and districts (see Figure 4 [Figure 4: see original paper]), collecting 278 records total.

Presentation was through WeChat Official Account articles. Due to column flexibility and the lack of a Web access portal, the team decided to provide PDF originals at the end of Official Account articles for access and download.

2.2.4 Beijing Epidemic Prevention Timeline Special Topic Since the COVID-19 outbreak, pandemic prevention content from government, social, and online sources has been 庞大无序, making it difficult for readers to navigate. Sociology subject librarians listed the overall pandemic prevention situation in Beijing from January 20 to June 15, 2020, based on key time nodes, and organized government orders, policies, and normative documents from municipal government and institutions, as well as response measures from social organizations and groups, in chronological order. Through careful planning and organization via WeChat Official Account articles, content was 排版 ed in chronological sequence with 图文并茂 for easy reading (see Figure 5 [Figure 5: see original paper]).

2.3 Effect Analysis

Since launching the pandemic prevention thematic data compilation plan on March 2, 2020, subject librarians have continuously collected and processed data, with new data pushed every Friday via the Official Account while webpage data was updated in real time. As pandemic data required real-time response, statistics from nearly 90 days showed 爆发点 in reading frequency and user numbers at each push node. Cumulative readings reached 467 for policy documents, 312 for Beijing leadership footprint, and 258 for Beijing work resumption information—all exceeding the library's daily average resource push readership (see Figure 6 [Figure 6: see original paper]).

The Official Account articles received attention at the school level, with the school's Official Account reposting them. The library's emergency services received unanimous approval from school leadership.

3. Reflections and Summary

While the library successfully completed emergency service practices under existing conditions, shortcomings and areas for improvement remain. For example, technical librarians failed to establish data format specifications in advance, resulting in the need for data structuring before database entry—a detour that caused significant inefficiencies. During public health emergencies, remote collaborative cooperation models can maximize the mobilization of subject librarians. The emergency service practice designed in this paper serves as a rapid response to public health emergencies, offering the following 借鉴 able advantages and areas for improvement for future researchers.

3.1 Advantages

(1) The remote collaborative cooperation model enables clear division of labor based on subject librarians' expertise, integrates resources, and fully leverages subject librarians' initiative.

(2) Resource 推送 via popular WeChat Official Account articles increases acceptance; mobile and diversified presentation methods reach more readers with greater effectiveness.

(3) Authoritative data with timely updates enables some readers to follow thematic resource developments long-term, enhancing the value of emergency resource construction.

3.2 Shortcomings

(1) While mobile webpage presentation benefits general public reading experiences, it hinders researchers' work by lacking content search functionality.

(2) Individual topics appear content-thin; a complete thematic database covering all topics is lacking. Within limited timeframes, library technical capacity cannot further integrate resources into a systematic knowledge base.

(3) Statistics only reflect reading frequency and user numbers, lacking persuasive power and in-depth analysis of individual topics, such as search frequency and keywords.

(4) Most collected government documents came from webpages with only titles and links collected; their typical one-year lifecycle undermines long-term database validity.

These shortcomings can be addressed through questionnaire surveys for feedback collection, further topic refinement based on reader needs, and improved subject librarians' digital processing capabilities. Libraries lacking development capacity can introduce third-party technical companies for system function module development. For resources with only title information, manual or web crawler technology can download and save government webpage content to local databases. During public health emergencies, the integration of emergency resources well demonstrates libraries' professional competence and social value. Currently, rapid-response library emergency services during public health emergencies remain rare, and resource integration construction faces many challenges. To achieve substantial progress, libraries must summarize patterns behind each public health emergency, absorb and extract valuable experience from each emergency service, strengthen subject librarians' relevant skills training, and improve collection development strategies to achieve continuous progress in an ever-changing social environment.

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Chen Chen: Paper framework design and writing;
Wang Xiaobing: Thematic case interface design.

Note: Figure translations are in progress. See original paper for figures.