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Designing for Resilience and Adaptive Capabilities: Public Libraries as Therapeutic and Inclusive Learning Environments for Refugees in New Country

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ABSTRACT

This study explores the transformative role of public libraries in supporting refugee resilience through inclusive learning environments. Going beyond their traditional functions, public libraries facilitate refugees' economic, cognitive, socio-cultural, and political integration. A systematic review of 36 peer-reviewed articles reveals how libraries serve as culturally responsive spaces with inclusive layouts and tailored resources, positioning them as vital hubs for health equity, socio-economic mobility, and psychosocial support. The study identifies persistent challenges – such as limited accessibility, insufficient funding, and lack of staff training – constraining libraries' capacity to address refugee-specific needs. This research proposes a conceptual design model that positions libraries as therapeutic and inclusive environments. The model offers actionable guidance for policymakers, designers, and practitioners seeking to enhance refugee integration through targeted programs, services, and spatial interventions. Public libraries can play a pivotal role in promoting refugee well-being and fostering long-term community resilience by embedding inclusive design principles.

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Design; inclusive learning environment; public library; Refugee; Resilience; therapeutic environment

Introduction

The global refugee crisis continues to escalate, with over 35.3 million refugees reported in 2024, reflecting a significant increase in forced displacement due to conflict, persecution, and climate-related disasters (United Nations High Commissioner for Refugees, 2025). Refugees often arrive in host countries having already endured traumatic experiences during pre-migration – such as violence, persecution, and prolonged displacement. As they navigate post-migration and resettlement, they face additional multifaceted challenges, including language barriers, cultural adaptation, and rebuilding their lives in unfamiliar settings. These difficulties compound earlier trauma and heighten

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their vulnerability to social exclusion and systemic inequalities, underscoring the urgent need for targeted interventions to foster resilience and facilitate integration into host communities.

Public libraries have emerged as critical institutions in addressing these challenges, offering resources and programs that promote refugee integration (Kosciejew 2019) and well-being (Grossman et al. 2022). The current version of the IFLA-UNESCO Public Library Manifesto (2022) also emphasizes the role of public libraries for inclusion. The IFLA-UNESCO Public Library Manifesto (2022) underscores the inclusive mission of public libraries, which serve as havens for everyone, including displaced individuals and refugees, aiding in the two-way integration process. The current version of the IFLA-UNESCO Public Library Manifesto (2022) emphasizes the role of public libraries in fostering inclusion for all members of society. Building on this foundation, the IFLA Guidelines for Libraries Supporting Displaced Persons (Gerasimidou et al. 2024) identify libraries as safe, welcoming spaces for refugees, migrants, immigrants, and asylum seekers. These guidelines underscore the critical role libraries play in facilitating two-way integration by helping displaced individuals recover from trauma and adjust to their new environments, while also fostering intercultural dialogue and mutual understanding between host and newcomer communities (Gerasimidou 2024). They address information gaps, support language acquisition, and offer safe, communal spaces for social interaction and learning (Johnston et al. 2024). As community-centered institutions, public libraries are vital hubs for fostering social capital and resilience, engaging people from diverse backgrounds through education, information dissemination, and empowerment (Cigarini et al. 2021). Globally, examples include multilingual reading and homework assistance in Malaysian libraries (Georgiou et al. 2023), and targeted efforts by Canadian public libraries to address language barriers for refugee populations (Derksen and Teixeira 2023).

Beyond supporting language learning and service navigation – that is, helping refugees locate and access local services – public libraries play a crucial role in fostering refugee resilience. They offer inclusive environments that promote emotional well-being, build skills, and support social integration (Kosciejew 2020). Johnston et al. (2024) found that public libraries in Hungary and Poland responded to an influx of Ukrainian refugees in addressing community needs, rooted in their core values of inclusivity and community engagement. Libraries also contribute to the UN Sustainable Development Goals, especially in advancing education (SDG 4) and reducing inequalities (SDG 10), through culturally responsive programs for refugee families (Connaway et al., 2023). For instance, in Lisbon, Portugal, library patrons initiated multicultural storytelling sessions among refugee families to support cultural acclimation (Serra and Revez 2023). In Scotland, tailored information support has been adequate for Syrian refugees at different stages of

resettlement, stated (Martzoukou and Burnett 2018) in their study. Some libraries have further expanded support by hiring social workers to assist refugee patrons with complex needs, including housing and trauma recovery have stated in Lloyd (2020) and Garner et al. (2021) studies.

Despite their transformative potential, the role of public libraries in fostering refugee resilience remains underexplored – especially from a design perspective. While libraries are often celebrated as democratic, community-centered spaces, limitations in accessibility, funding, and staff training can constrain their capacity to address refugee-specific needs (Grossman et al. 2022). It is imperative to understand how public libraries strategically foster resilience through inclusive programs, services, and design elements to maximize their impact on refugee integration. This study argues that public libraries, when intentionally designed and programmatically equipped, can function as therapeutic, inclusive learning environments. By aligning services and spatial design with the lived experiences of refugees, libraries can enhance individual well-being and support long-term integration into society.

Problem statement

Although public libraries have been recognized as vital for addressing refugees' informational, socio-cultural, and well-being needs, existing research is fragmented and lacks a comprehensive focus on their role in fostering resilience. Many studies emphasize specific services, such as language acquisition or digital literacy, but fail to address the broader *socio-emotional* and economic challenges refugees face during resettlement (Dannenbaum 2019; Salzano et al. 2022). This narrow scope overlooks how libraries can function as holistic, inclusive environments that promote both service access and long-term integration.

Key gaps in the literature include limited attention to how library spaces and programs can be intentionally designed to support refugees' psychological, social, and economic resilience in new contexts. While Kosciejew (2020) aligns library services with the UN's 2030 Agenda for inclusive learning, these studies often do not examine their therapeutic or trauma-informed potential for displaced populations. Additionally, few studies integrate perspectives from both library staff and refugee patrons, constraining the development of practical, inclusive design frameworks. For instance, while Lloyd (2014) discusses health literacy and information resilience, few empirical models exist to guide libraries in holistically supporting refugee well-being (Grace and Sen 2013). Empirical research that evaluates both the service side and the user experience of refugee-focused library initiatives remains limited. Furthermore, partnerships with different refugee-hosting organizations and supporting refugees' livelihood-related services would also enhance refugees' wellbeing and resilience, which remain limited in public library studies.

Existing studies often focus on isolated services or case studies rather than taking an integrated approach to resilience. Shuva (2023), for example, discusses safe spaces for immigrant integration, while Salzano, Hall, and Webster (2020) address library programs like language instruction or civic engagement – yet both stop short of examining how these elements interact to promote refugee adaptation. Broader public sphere perspectives (Aabø and Audunson 2012; Abutayeh 2021) often exclude refugee-specific dynamics. Salzano, Hall, and Webster (2020) and Vårheim (2017) acknowledge the resilience-building potential of libraries through services like employment, literacy, and small business support, but their focus is often on natural disasters or generalized populations rather than refugee experiences. Together, these gaps highlight the need for research that connects refugee-specific needs with the ways libraries can foster long-term, adaptive resilience.

The literature emphasizes that the physical environment significantly influences inclusion and well-being, particularly for refugees, by shaping spatial conditions that support their integration into host communities. (deJonge 2023). emphasizes the role of spatial settings in refugee integration. Antczak and Gruszka (2023) found that Polish academic libraries supported Ukrainian refugees by offering multifunctional spaces like coworking zones and daycare. Dalmer et al. (2022) describe libraries as "third places" that provide essential resources – heating, restrooms, quiet areas, and internet – that foster social connection and belonging. Kennedy et al. (2019) stated that safe spaces in public libraries may increase a greater sense of belonging and more agency for young refugees in public libraries. Rodriguez (2019) stated that safe spaces in public libraries can create a sense of belonging refugees at three levels: individual level, peer-to-peer level, and a level that includes an awareness of civic engagement. Li and Todd (2019) and Martzoukou (2020) show that dedicated youth areas and makerspaces enhance comfort for refugee adolescents. Similarly, Grossman et al. (2022) connect spatial design with the sense of welcome for immigrant children, while Cruz (2018) highlights incisive features- like tactile flooring, ergonomic handles, and transparent elevators- at Barcelona's Monserrat Abelló library, these features can also make inclusive public libraries for all. While existing studies explore both public library services and aspects of the physical environment, they often treat these dimensions separately and fail to explicitly examine how the physical environment itself contributes to refugee resilience. This gap overlooks the critical role that spatial design can play in supporting emotional recovery, social integration, and long-term well-being for displaced populations.

While current research on public library services has advanced in documenting general community support roles, it often neglects the integration of both mainstream and refugee-centered perspectives. Previous studies have not sufficiently addressed how libraries can support refugees' acculturation, language development, and socio-emotional resilience during resettlement.

Additionally, there is a lack of practical, actionable guidance for designing inclusive learning environments that help refugees navigate vulnerability, displacement-related stress, and insecurity in host countries (GCIR 2017). These gaps limit the capacity of public libraries to develop comprehensive, trauma-informed frameworks for planning and managing

These critical gaps in existing literature – including the limited integration of refugee-centered perspectives, lack of practical design frameworks, and minimal attention to physical environments – underscore the need for research that holistically examines how public libraries can support refugee resilience. Addressing this gap requires a nuanced understanding of how libraries' services, stakeholder experiences, and spatial features interact to shape inclusive environments during resettlement.

Building on these perspectives, this study aims to explore how public libraries can serve as inclusive environments that address refugees' unique socio-cultural, emotional, economic, and physical challenges, ultimately fostering their resilience and facilitating integration into host communities.

Research objectives and questions

Building on the identified gaps, the primary goal of this study is to explore how public libraries can function as inclusive learning environments that support the resilience and integration of refugee communities during resettlement. Drawing on existing literature, the study examines the roles of services, stakeholder experiences, and spatial design in shaping inclusive and resilience-building library environments.

To guide this investigation, the study addresses the following research questions:

> Research Question 1. **Services and facilities**: What services and facilities do public libraries provide to refugees, and how have these offerings evolved to meet their resettlement needs?
>
> Research Question 2. **Perceptions**: How do library staff and refugee patrons perceive the strengths and limitations of public libraries in fostering refugee resilience, and what challenges remain?
>
> Research Question 3. **Inclusive features**: What physical and programmatic features characterize public libraries that effectively support refugee well-being, integration, and resilience?

By triangulating insights across these dimensions, the study proposes a conceptual design model for public libraries that integrates tailored services, inclusive practices, and trauma-informed spatial strategies. This model will demonstrate how public library environments can play a transformative role

in supporting refugee well-being, enhancing resilience, and promoting socio-cultural integration throughout the resettlement process.

Theoretical framework

This study draws on two interrelated theoretical frameworks – community resilience and integration – to examine how public libraries can support refugee adaptation and well-being in resettlement contexts. It adopts José Alberto Diaz's (1993) *integration* as a social process of interaction between immigrants and host communities, culminating in the increasing participation of minority groups across key societal systems. Díaz identifies five dimensions of integration – communication, structure, politics, social connection, and personal development – which inform this study's interpretation of how libraries facilitate refugee inclusion across multiple domains.

While resilience and integration are conceptually distinct, they are frequently discussed together in refugee studies (Dubus 2018). *Resilience* is defined here as the capacity to adapt and recover from adversity (Vårheim 2017), while *integration* involves gaining access to education, employment, and social participation in host societies (Igarashi, Koizumi, and Widdersheim 2023a; Johnston 2016, 2019). Public libraries are uniquely positioned to promote to promote both acting as inclusive spaces (Johnston 2016) for civic learning, emotional recovery, and social connection (Igarashi, Koizumi, and Widdersheim 2023a; Vårheim 2017). This study examines libraries as inclusive learning environments where services and settings contribute simultaneously to resilience-building and integration.

Concepts of resilience

Resilience theory originated in physics with the description of a material's ability to bounce back to its former state, achieving equilibrium after experiencing external stressors (Vårheim 2016). According to Holling (1973), resilience is a "measure of the persistence of systems and their ability to absorb change and disturbance" based on nature's instabilities and dynamics. It is described as the system's capacity to handle the effects of adverse changes and shocks (Cutter et al. 2008), highlighting its capacity to self-organize, renew, and develop (Dhar and Khirfan 2017) while including elements like buffering impacts, bouncing back to pre-shock situations, shock-absorbing, evolving, or transforming (Berkes and Ross 2013; Norris et al. 2008). Social, political, and environmental change form the foundation of resilience (Adger 2000). It also represents change mechanisms and adaptation capacities (Pelling, O'Brien, and Matyas 2015).

Adaptive capacity is central to resilience, involving the interaction of human, socioeconomic, natural, and physical assets (Mesfin et al. 2020). It

operates through social networks and learning communities, ranging from individuals to societies and organizations. According to Brown and Westaway (2011), adaptive capacity is similar to the concepts of agency[1] and self-efficacy.[2] It is a latent quality that can be activated when people utilize their agency. Vulnerability and adaptive capacity are interconnected (Gallopín 2006) and are related to resilience. Guillard-Gonçalves and Zêzere (2018) and Hossain and Rahman (2021) argued that vulnerability is strongly tied to spatial-physical, economic, political, institutional, and governance characteristics.

Focusing on refugee resettlement, this study highlights two core dimensions of resilience: adaptive capacity and community resilience. Libraries can enhance refugees' adaptive capacity by providing stable, inclusive, and resource-rich environments that support learning, routine, and autonomy.

Community resilience

Community resilience is defined as "the existence, development, and engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability, and surprise" (Magis 2010, 402). Cutter et al. (2008, 599) describe communities as "the totality of social system interactions within a defined geographic space," such as a neighborhood or city. Key drivers of community resilience include social, economic, and environmental capital (Wilson 2014). Social capital, in particular, has been identified as a critical component in enhancing resilience and post-disaster recovery (Aldrich and Meyer 2015). Unlike individual resilience, which focuses on personal coping strategies, community resilience emphasizes collective agency and shared resources.

Despite growing research on community resilience, few studies explicitly examine how public libraries contribute to community resilience (Grace and Sen 2013). Among the limited work, Veil and Bishop (2014) applied Norris et al. (2008) resilience framework, identifying four key capacities: economic development, social capital, information and communication, and community competence. These elements are echoed in (Vårheim 2017) study linking libraries to resilience-building.

This study adopts Norris et al. (2008)'model to assess how libraries help refugees build resilience across these four domains. It also aligns with Berkes and Ross (2013), who emphasize shared values, governance, and infrastructure as foundations of resilience. For refugee populations – often facing housing instability, economic insecurity, and social isolation – libraries can serve as key enablers of resilience by fostering social cohesion and offering inclusive spaces for learning and collective action.

Public libraries as resilience-building institutions for refugees: An integrated lens

Recent scholarship underscores the significance of libraries in supporting vulnerable populations, especially in crisis recovery and adaptation (Grace and Sen 2013; Vårheim 2017; Veil and Bishop 2014). This study extends these insights to the refugee resettlement context, focusing on three critical ways public libraries contribute to both resilience and integration:

In the context of refugees, *Information resilience* plays a critical role in refugee resilience during resettlement, addressing challenges like language barriers, unfamiliar systems, and sociocultural differences that hinder access to essential resources such as legal aid, employment, housing, and healthcare (Martzoukou and Burnett 2018). Reliable information enhances access to essential resources such as legal aid, housing, healthcare, and employment, fostering independence and integration while strengthening community resilience (Essex et al. 2022). Hersberger (2011) emphasizes that understanding the dynamics of vulnerability and resilience in information equips library professionals to provide more targeted and effective services. Lloyd (2014) further develops the concept by examining health literacy (Lloyd 2017), and workplace information practices (Lloyd et al. 2013) among refugees, illustrating how information resilience operates across social contexts. Fisher, Durrance, and Hinton (2004) empirically examined libraries in Queens, New York as "information grounds," emphasizing libraries as spaces for incidental information exchange and social interaction. Diaz (1993) integration model aligns seamlessly with the concept of information resilience by emphasizing communicative integration, which involves attaining linguistic competence and consuming local media – both foundational to accessing critical information. Moreover, libraries provide safe, non-judgmental environments that support information literacy practices for disadvantaged groups, including refugees, as part of enhancing their information resilience (Lloyd, 2015, pp. 1039–1040). Other social activities, including homework preparation, tutoring, children's playing exercises, and parents and grandparents reading to young kids, can also be added to the public library for refugees' integration into the new society, making them feel welcome in a safe place (Martzoukou 2020; Yavuzdemir 2019).

Social resilience is a critical component of refugee adaptation, and public libraries serve as vital community hubs that foster social networks and societal integration. Research highlights that personal attributes such as cultural and religious beliefs, literacy, and access to social support significantly influence refugee resilience (Sossou et al. 2008). Libraries contribute to this by offering programs and services that promote bonding and bridging social capital, creating pathways for refugees to connect with the host society. The International Federation

of Library Associations (International Federation of Library Associations and Institutions, 2018) emphasizes libraries as welcoming spaces where refugees can access resources and build essential relationships. The PLACE study (Audunson et al., 2011) demonstrated how libraries supported immigrant women's inclusion into Norwegian society through friendship, education, and employment. Programs such as language classes, citizenship courses, job services, and cultural events help reduce isolation, foster trust, and build a sense of belonging (Audunson et al., 2011). Johnson and Griffis (2009) and Johnson (2010) found strong associations between library use and community engagement in Canada and the U.S., though trust in public institutions remained less affected. Veil and Bishop's (2014) research underscores libraries' role as sanctuaries during disasters, highlighting their contributions to recovery and community resilience.r Similarly, Fisher et al. (2007) highlighted libraries as valued social spaces that help mitigate social vulnerability. These findings align with Antczak and Gruszka's (2023) emphasis on the library's dual physical and social functions. These efforts reflect Diaz (1993) concept of *social integration*, which emphasizes creating connections across the broader population. Public libraries support this by hosting inclusive community programs and events that bridge cultural divides and promote engagement beyond immigrant networks (Aabø and Audunson 2012).

Public libraries further contribute to *economic and political integration*. Skill-building programs, job readiness workshops, and digital literacy training help refugees improve their economic standing (Diaz 1993). Civic resources and inclusive public forums promote political participation and engagement, as discussed by (Johnston and Audunson 2019). These align with Diaz's political integration framework and support the broader goals of inclusion and resilience.

Public libraries also contribute significantly to refugees' *health and well-being* by providing safe spaces, emotional support, and essential services. These efforts again resonate with Diaz's (1993) personal integration framework, fostering belonging and satisfaction in a new society.

While existing theoretical frameworks offer valuable insights, they often emerge from distinct research contexts, limiting a comprehensive understanding of the refugee community's reliance on public libraries. This study addresses that gap by examining how public libraries, through inclusive and responsive services, function as critical resources that mitigate refugee vulnerabilities, facilitate adaptation, and foster long-term resilience in resettlement contexts. By synthesizing community resilience theory and integration models, this research positions public libraries as holistic environments that not only support immediate needs but also enhance refugees' capacity to adapt, establish belonging, and thrive in new societies.

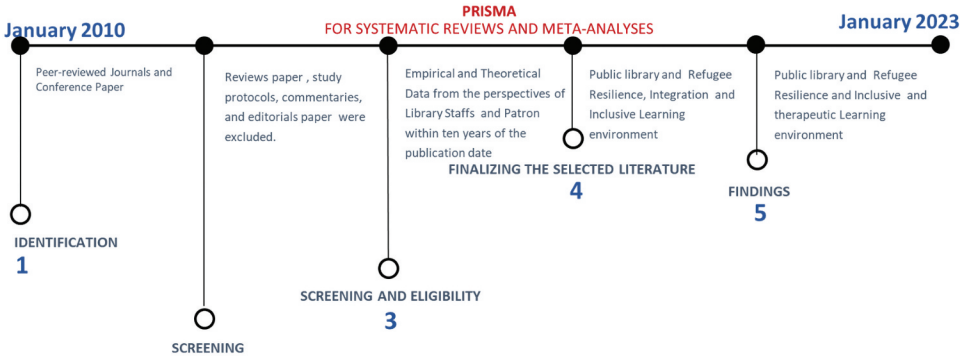


Figure 1. PRISMA method.

Methodology

This study employed a Systematic Literature Review (SLR) to rigorously examine existing research on how public libraries support refugees during resettlement. The SLR was selected to identify recurring patterns, thematic trends, and research gaps in the literature. To guide the process, the review followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework – a well-established standard for conducting structured literature reviews (Jahan et al. 2016; Kannisto, Koivunen, and Välimäki 2014).

As shown in Figure 1, the review followed a five-stage process: (1) identification of sources in reputable academic databases; (2) screening based on inclusion and exclusion criteria; (3) assessment of eligibility; (4) final selection of studies; and (5) synthesis and presentation of findings. Each stage is described in further detail below.

Search and eligibility criteria

The literature search covered the Web of Science (WoS), Library Information Science and Technology Abstracts (LISTA), Library Literature and Information Science (LLIS), and Google Scholar. Articles were included if they: (i) appeared in peer-reviewed journals or conferences; (ii) focused on librarian or institutional perspectives on refugee services; (iii) were published between January 2010 and January 2023; and (iv) were written in English. Excluded materials included reviews, protocols, editorials, and research on temporary visa holders. However, research focusing on refugees and immigrants in a similar context was included as part of this research, since they come together in several studies based on the nature of the problems. The articles were collected between June and August 2023, during the summer months when the authors were less constrained by their

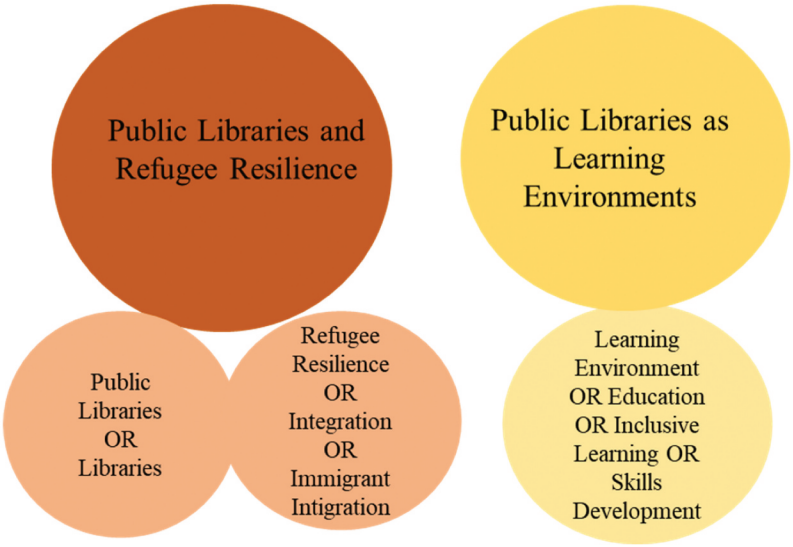


Figure 2. Topic search profile.

professional commitments. This timing allowed for a focused and uninterrupted research period, ensuring that the authors had the necessary availability to dedicate their full attention to the task.

Several considerations informed the decision to focus on literature published between January 2010 and January 2023. Over the past decade, refugee resettlement contexts have shifted significantly due to global socio-political changes, while the role of public libraries has evolved through digital technologies, expanded educational programs, and community-based services. This timeframe was chosen not to assert long-term growth, but to capture recent scholarly interest and emerging practices relevant to refugee resilience in public library settings. Although earlier reviews cover broader periods (e.g., 2000–2022) (Grossman et al. 2022, Naderi 2024), recent developments remain underexplored. It is important to note that the increase in publications may reflect academic engagement rather than a proportional expansion of library services. This study specifically centers on refugees – distinct from immigrants by choice – to offer a more focused understanding of their unique challenges. It also acknowledges that public libraries are one component within a broader ecosystem of refugee support, which includes health, legal, and housing services not explored in this review.

A systematic search strategy (Figure 2) was applied to titles, abstracts, and keywords to explore two key themes: (i) public libraries and refugee resilience, and (ii) libraries as inclusive learning environments. Boolean operators AND and OR structured the search strings:

Table 1. Databases, limiters, and search results.

Database	Limiters	Timeline of article collection	No. of articles
WoS	Title, abstract, keywords	June – August 2023	50
LISTA	Title, abstract, keywords		25
LLIS	Title, abstract, keywords		15
Google Scholar	Title, abstract		400

(1) ("Public Library" OR "Libraries") AND ("Refugee Resilience" OR "Refugee Integration" OR "Refugee Support" OR "Immigrant Resilience" OR "Immigrant Integration")
(2) ("Public Library" OR "Libraries") AND ("Learning Environment" OR "Inclusive Learning" OR "Skills Development")

The keyword "refugee" was emphasized in the title and abstract fields to ensure the literature was directly relevant to the research scope. While truncation (e.g., using refugee* to capture "refugee" and "refugees") is a common practice, it was not used in this study to avoid retrieving irrelevant records, such as those on "refugeedom" or unrelated terms. The decision was made to prioritize precision over recall, focusing the search on scholarly articles explicitly referencing refugee-related integration or resilience within library contexts.

Article selection

After eliminating duplicates, the initial electronic database search yielded 490 articles, with 200 unique articles remaining. In a three-step screening process, 100 articles were excluded, resulting in a shortlist of 100 articles. The process included keeping the literature if they discussed i) refugees' learning attitudes and public library role in the title/abstract; ii) refugees' cognitive, social, physiological, and economic inclusion in the public libraries, and iii) refugee/community/immigrants information attitudes and public library's role to society. The shortlisted 100 articles were further evaluated based on specific criteria that included i) no original data, ii) irrelevant to the research question, and iii) lack of concrete findings, resulting in a shortlist of 50 articles for final evaluation. A full-text review of these 50 articles led to the exclusion of 14 articles that lacked a distinct focus on refugees'/community needs and library services. Among 36 articles, 24 focused on public libraries and refugee resilience, and 12 on public libraries as an inclusive learning environment. Finally, the author screened and evaluated the 30 articles. The search and the selection process are summarized in Table 1 and Figure 3.

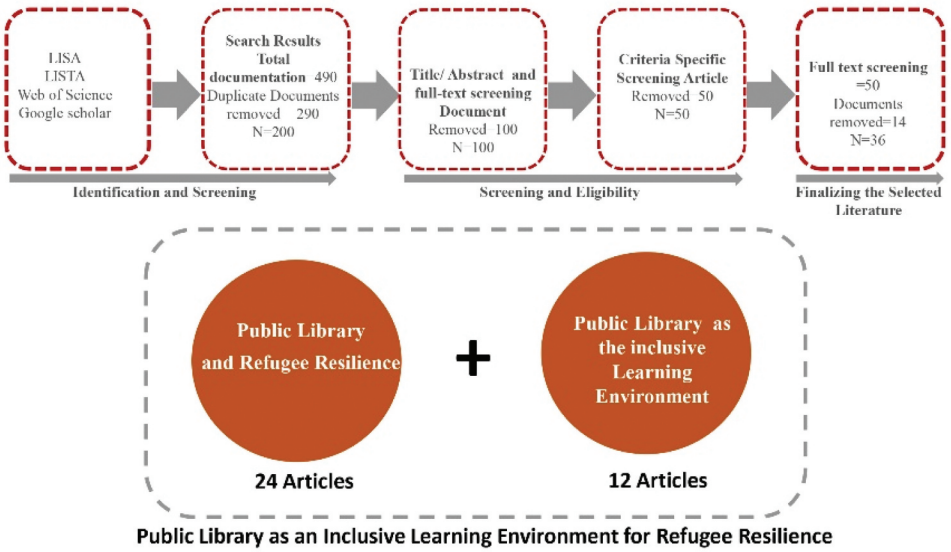


Figure 3. Document dataset selection—search and extraction processes illustrated.

Finalizing the selected literature and article abstraction and coding

The lead author created a spreadsheet to organize all selected articles systematically. The spreadsheet included columns for bibliographic details (journal name, publication date, and author names), sample information (population size, study location, and sampling methods), epistemological approach (qualitative, quantitative, or mixed methods), and methods used (e.g., focus groups). It also captured study aims, findings, recommendations, and connections to the social determinants of health. For studies focusing on refugee populations, additional fields were included for descriptive characteristics such as length of time in the host country, age, education level, and language of data collection.

Analysis process

This study employed Constructivist Grounded Theory (Charmaz 2006) to guide the data analysis, using a three-phase coding process: open, axial, and

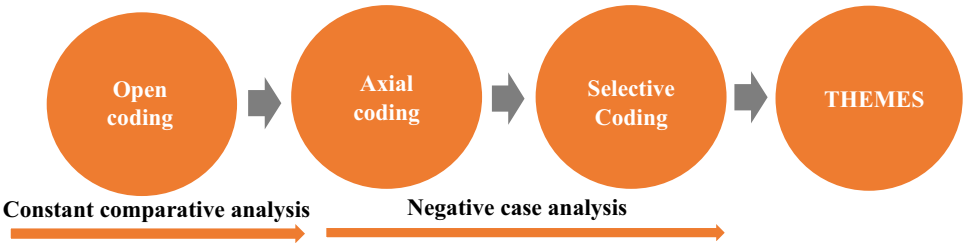


Figure 4. Coding process.

selective coding (Figure 4). The objective was to identify common themes related to how public libraries support refugees' social, cultural, and economic resilience during resettlement.

The analysis process followed a systematic approach. Data was systematically reviewed and categorized in the open coding phase to ensure comprehensive and non-overlapping classification of themes. This phase ensured that each data point was exhaustively captured and meaningfully labeled. During axial coding, connections between categories were explored to understand how these themes relate to one another and the broader research questions. This phase explored the *why* and *how* of category relationships and their impact on understanding refugees' resilience. This involved examining causal relationships, contextual factors, and variations within the data. The selective coding phase synthesized the findings into overarching themes that directly aligned with the study's research aims, focusing on the library's role in refugee adaptability and resilience-building.

Data quality and credibility measures

Data quality was ensured through source quality (e.g., Web of Science) and specialized sources (e.g., library science databases), adherence to strict inclusion criteria, constant comparative analysis *(how they are comparable)* and negative case analysis (*what is left*) (Charmaz 2006). Peer debriefing (Creswell and Miller 2000) further enhanced the credibility of the findings. The lead author invited peers with relevant experience, specifically in refugee-related work and inclusive public library design, to review the codebook and emerging themes. This external validation ensured the interpretations were logical, consistent, and aligned with the study's research goals. In addition, the study utilized also VOSviewer and academicaly licensed NVivo 14 to analyze keyword co-occurrence and author connectivity, generating visual representations of the data—an essential component of qualitative meta-analysis (Hoon 2013). Triangulation was achieved by integrating three complementary analysis methods: VOSviewer for bibliometric mapping, NVivo for qualitative coding, and traditional thematic analysis. This multi-method approach strengthened the internal validity of the findings.

While the lead author conducted the primary analysis, all coauthors collaboratively developed and finalized the search terms and coding protocols. Thematic coding was directly guided by the three research questions and was refined through multiple revisions to improve coherence, minimize redundancy, and uphold analytic consistency.

Reflexivity statement

All authors bring longstanding professional experience and commitment to working with refugee communities, which deeply informs the study's perspective and approach. The lead author has over a decade of firsthand experience designing housing for refugees, offering valuable insight into refugees' spatial, social, and emotional challenges in resettlement. This expertise shapes the study's focus on public libraries as therapeutic and inclusive environments that foster resilience and adaptive capabilities. Additionally, the lead author's background in public library design enriches the analysis by bridging architectural and informational dimensions of refugee support. The coauthor, with extensive experience in refugee housing and community engagement, provides complementary insights and ensures rigorous scholarly critique. Together, the authors' combined practical and academic perspectives strengthen the study's relevance and depth.

Results and analysis

The results are organized around the study's three research questions: (1) How do public library services and facilities support refugee resilience? (2) How do refugees perceive these services? (3) What spatial characteristics define inclusive libraries from the perspective of refugee users?

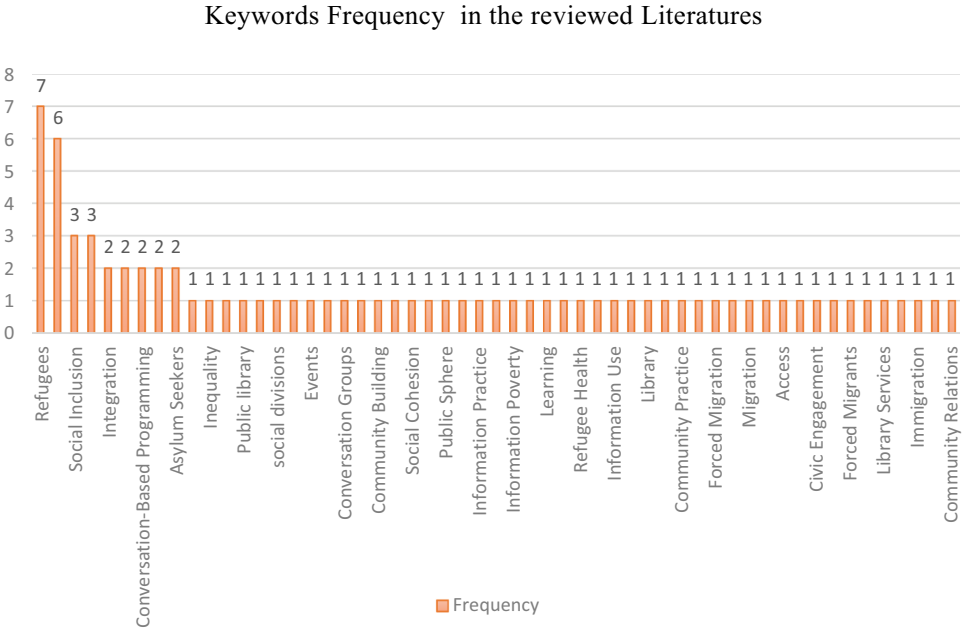
Before addressing these questions, a brief overview of the selected literature is presented to contextualize the scope and breadth of the review. This includes a summary of publication venues, author affiliations, and research types (empirical or theoretical). While this quantitative summary does not directly address the core findings, it provides transparency on the nature of the evidence base and the scholarly engagement with public library and refugee topics.

Overview of reviewed literature

This section summarizes the scope and focus of the 24 articles reviewed on public libraries and refugee resilience (PLR). Most of these studies were published between 2011 and 2023 (Table 2), reflecting a growing interest within the Library and Information Science (LIS) field in exploring the role of public libraries in supporting refugee integration and community resilience. Most of the articles appeared in LIS journals and conference proceedings, highlighting the centrality of the LIS discipline to this topic. Notably, only one article was published outside LIS journals—*Children and Youth Services Review*, which focuses on youth and underserved populations. All others, including the *Canadian Journal of Information and Library Science*, are within the LIS field.

Table 2. List of articles focused on PLR with keywords and publication types.

Articles	Keywords	Publication types Journal/conference
(Audunson et al., 2011).	None	Library & Information Science Research
Grace and Sen (2013)	None	Library Trends, Johns Hopkins University Press
Hashim, Rehan Baharom, and Affandi Zakaria (2017)	Refugees, Education, Activities, Collaboration, Engagement, Services, Special Needs	Conference Paper, IFLA WLIC 2019 - Athens, Greece
(Igarashi et al., 2023b)I	Social division, Inequality, Social capital, Democracy, Public library	Journal of Documentation
(Igarashi et al., 2023a) I	Public libraries; social divisions; programming; events; Norway	Libri International Journal of Libraries and Information Studies
Johnston (2016)	None	Library & Information Science Research
Johnston (2018)	Conversation Groups, Conversation-Based Programming, Immigrants, Integration, Intergroup Contact Theory, Language Cafes, Public Libraries	Journal of Librarianship and Information Science
Johnston (2019)	Community building, conversation-based programming, immigrants, integration, contact theory, language cafes, public libraries,refugees, social cohesion	Journal of Librarianship and Information Science
Johnston and Audunson (2019)	Conversation Circles, Conversation-Based Programming, Immigrants, Integration, Language Cafes, Public Libraries, Public Sphere, Refugees	Journal of Librarianship and Information Science
Kennan et al. (2011)	None	Australian Academic & Research Libraries
Kosciejew (2019)	None	Library Quarterly: Information, Community, Policy, The University of Chicago.
Lloyd et al. (2013)	Refugees, Information Literacy Practice, Information Practice, Social Inclusion, Social Exclusion, Information Poverty, Literacy, Learning	Journal of Documentation
Lloyd (2014)	Health Literacy, Refugee Health, Information-Seeking, Information Use	Australian Academic & Research Libraries
Rodriguez (2019)	Newcomers, Library, Community-Based Research, Community Practice, Undocumented, Refugee	Children and Youth Services Review
Salzano, Hall, and Webster (2020)	None	Proceedings of ISIC
Salzano et al. (2022)	Asylum Seekers, Forced Migration, Information Behavior, Public Libraries, Refugees	85th Annual Meeting of the Association for Information Science & Technology
Salzano et al. (2022)	Public Libraries, Migration	Conference Paper, CoLIS 11 2022
Scott (2011a)	Public Libraries, Community Development, Community Building, Library, Access, Equity, Social Inclusion, Civic Engagement, Economic Vitality	Public Library Quarterly
Serra and Revez (2023)	Asylum Seekers, Forced Migrants, Lisbon Metropolitan Area (Portugal), Public Libraries, Refugees, Social Inclusion	Journal of Librarianship and Information Science
Shepherd, Petrillo, and Wilson (2018)	Library Services, Settlement, Refugees, Public Library	Library Management
Van der Linden, Bartlett, and Beheshti (2014)	Immigration, Library Use, Community Relations	Canadian Journal of Information and Library Science,
Vårheim (2014)	Immigrants, Public Libraries, Refugees, Social Capital, Social Trust	Journal of Librarianship and Information Science
Vårheim (2016)	None	Proceedings from the Document Academy University of Akron Press Managed
Vårheim (2017)	None	iR information Research. Proceedings of the Ninth International Conference on Conceptions of Libraryand Information Science, Uppsala, Sweden, June 27–29, 2016


Keywords Frequency in the reviewed Literatures
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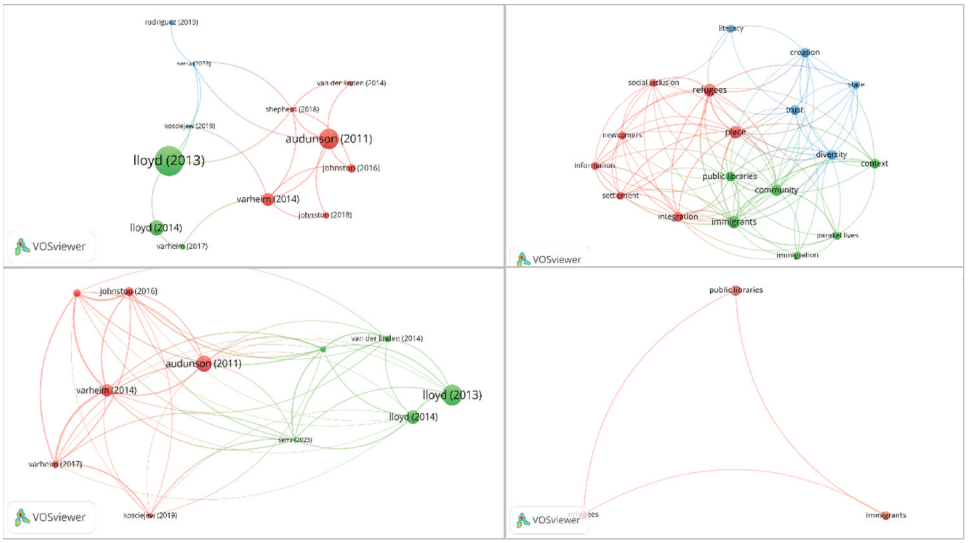

Figure 6. Keyword co-occurrence, authors' connection, and citation.



Figure 7. Word cloud generated through NVivo.

The analysis of word frequency across 18 selected articles generated by NVivo, depicted in Figure 7, indicates a robust exploration of public libraries' pivotal role in facilitating the integration and support of refugee populations across multiple countries. A primary focus includes the promotion of resilience and social inclusion through library services, emphasizing community cohesion and enhancing the sense of belonging among the refugee community. This analysis highlights the critical intersections of information access, health literacy, and integration within public library settings, emphasizing the importance of trust, cultural understanding, and democratic engagement.

Findings also revealed that 16 of 18 articles presented empirical evidence, utilizing resettled refugees in the USA, UK, Australia, Canada, Malaysia, Norway, Scotland, and Sweden as case studies. These studies helped surface five cross-cutting domains of library support for refugee resilience: cognitive and educational support, social and cultural inclusion, economic participation, civic engagement, and spatial belonging.

Thematic coding overview

Before addressing the research questions in detail, it is essential to outline the thematic structure that emerged from the analysis. The study examined library staff and refugee users' perceptions, revealing mixed views about public library services and facilities. Through open, axial, and selective coding of the 24 PLR articles, the analysis identified 67 codes, 59 categories, 35 sub-themes, and 5 overarching content-based themes (Appendix 1). These themes are assumed to be interconnected, forming a composite framework of inclusive public library practices. For instance, categories such as "meeting space," "social area," and "conversation café" contribute to social integration, while "skill development" and "job readiness" align with economic participation. These themes frame the findings in response to Research Questions 1 and 2.

Research Question 1: What are the diverse services and facilities offered by public libraries to refugees, exploring evolution and trends?

The findings suggest that public libraries primarily serve refugee communities as information centers, promoting lifelong learning and enhancing quality of life. Additionally, the study proposes that public libraries could strengthen refugees' cultural identity and mitigate cultural conflicts by offering various library programs. Summarizing previous literature indicates that public libraries provide refugees with essential services and play crucial roles. Five themes emerged on this topic: (1) Cognitive and Lifelong Learning, (2) Economic Capital, (3) Socio-cultural Services and Facilities, (4) Political Integration and Capital, and (5) Physical environment integration through

Table 3. Themes and authors' profiles for articles focus on PLR.

Themes	Authors	Publications
Cognitive and Lifelong Learning	(Grace and Sen 2013) (Hashim, Rehan Baharom, and Affandi Zakaria 2017) (Kosciejew 2019) (Salzano et al. 2022) (Scott 2011a) (Serra and Revez 2023) (Shepherd, Petrillo, and Wilson 2018) (Van der Linden, Bartlett, and Beheshti 2014) (Vårheim 2014)	9
Economic Capital	(Igarashi, Koizumi et al. 2023b) (Johnston 2018) (Vårheim 2014)	3
Socio-Cultural Services and Facilities	(Annemaree Lloyd et al. 2013) Igarashi, Koizumi et al. 2023a) (Igarashi, Koizumi et al. 2023b) (Johnston 2016) (Johnston and Audunson 2019) (Johnston 2019) (Kennan et al. 2011) (Kosciejew 2019) (Rodriguez 2019) (Salzano, Hall, and Webster 2020) (Salzano et al. 2022) (Scott 2011a) (Serra and Revez 2023) (Shepherd, Petrillo, and Wilson 2018) (Vårheim 2014) (Vårheim 2016) (Vårheim 2017)	17
Political Integration and Capital	(Johnston 2016) (Johnston and Audunson 2019) (Rodriguez 2019) (Serra and Revez 2023)	4
Spatial Integration through Facilities	(Audunson et al., 2011) (Grace and Sen 2013) (Rodriguez 2019) (Shepherd, Petrillo, and Wilson 2018)	4

facilities. These themes are discussed in the identified literature through the lens of refugee resilience, as shown below in Table 3.

Cognitive and lifelong learning

More than 50% of the 24 articles shortlisted in this study (16 out of 24) focus on public library services that promote linguistic inclusivity by providing resources in multiple languages. This approach enhances cognitive well-being by fostering language growth and understanding in linguistically supportive environments for refugees.

16 articles highlight public libraries as cognitive development centers and vital information hubs for refugees, addressing their immediate needs with crucial information on employment, education, and health. Public libraries offer literacy resources covering news, academics, language learning, health, children's literature, and financial literacy. For example, Portuguese language classes and digital literacy courses in

Table 4. List of articles focused on PLI with keywords and publication types.

References	Keywords	Journal/Conference
Audunson et al. (2019b)	Public Libraries; Democracy; Public Sphere; Citizenship Information; Community Meeting Place; Social Role of Libraries	Journal of Documentation
Audunson et al. (2019b)	Public Libraries, Qualitative Research, Comprehensive Review, Public Sphere, Habermas al. (2019a)	Journal of Documentation
Brewster (2014)	Public Library; Therapeutic LandscapeMental Health; Well-Being	Health &Place
Husaini et al. (2018)	Public Library, Therapeutic Landscape, Quality, Users' Expectation, Users' Perception, Satisfaction	International Journal of Academic Research in Business and Social Sciences
Jochumsen, Rasmussen, and Skot-Hansen (2012)	Library Development, Library Building and Designing, Role of The Library, Societal Changes, The Physical and The Virtual Library, Experience, Learning, Meeting, Performance	New Library World
Johnson (2012)	None	Library & Information Science Research
Kaeding, Velasquez, and Price (2017)	Public Libraries, Children With Disabilities, Inclusive Library Model	Journal of the Australian Library and Information Association
Kawamoto and Koizumi (2023)	Library As Place, Public Libraries, Library Buildings, Sense of Place, Qualitative Content Analysis	Journal of Documentation
Vakkari, 2016	User studies, Value analysis, public libraries	Journal of Documentation
Vakkari et al., 2014	Public libraries, Benefits, Survey, Library users, Outcomes, Cross-country comparison	Journal of Documentation
Vårheim et al., 2019	None	Library and Information Science Research
Yoo-Lee, Heon Lee, and Velez (2013)	Library buildings, Library designs, User behaviors, Academic libraries, Undergraduates,Information commons, Learning commons	Journal of the Australian Library and Information Association

Lisbon help displaced individuals with job searches and communication (Serra and Revez 2023). Public libraries also help refugees acquire health information for adaptation (Lloyd 2014).

Public libraries provide educational materials like printed and online resources, DVDs, and toys, enhancing English literacy through books and movies. Multilingual facilities, such as brochures, books, apps, and multilingual staff, address language barriers (Van der Linden, Bartlett, and Beheshti 2014). Programs like children's programming, literacy initiatives, ESL classes, and digital literacy connect refugees with resources for acculturation (Hashim, Rehan Baharom, and Affandi Zakaria 2017; Rachel; Scott 2011a).

Human capital development through digital literacy programs and access to online learning platforms is another benefit of public libraries (Kosciejew 2019; Lloyd et al. 2013). Public libraries also help improve refugees' confidence and self-esteem, aiding stress management and language acquisition (Audunson et al., 2011; Shepherd, Petrillo, and Wilson 2018; Van der Linden, Bartlett, and Beheshti 2014). Public libraries facilitate cultural exchange by serving as venues for celebrating diverse cultures and extending

cultural activities outdoors, enriching the social fabric of the host society (Johnson 2012; Rodriguez 2019).

Economic inclusion and capital

Three articles directly highlight the public library's role in enhancing economic capital for its patrons. These articles emphasize that public libraries assist in building resumes, job applications, interview skills, and business/entrepreneurship skills (Johnston 2018; Vårheim 2014). These activities help patrons become economically resilient in new countries.

Socio-cultural services and facilities

17 articles highlight that public libraries bolster social capital among refugees through diverse activities, serving as safe spaces for relaxation, study, and socializing. Research indicates that public libraries serve as safe, socially acceptable spaces for relaxation, study, or socializing (Johnson 2012). According to Aabø and Audunson (2012) public libraries serve as open communal places, yet many people utilize them for private, professional, and study-related purposes. They also illustrated, "The library is not only an arena where one is exposed to pluralism and otherness. It is also an arena where one can hide being different or marginalized" (p. 144). Another study found that young refugees use public libraries as hubs for democracy, fostering a sense of belonging for newcomers (Vårheim 2014). Public libraries often act as venues for the celebration and exchange of cultures. Under the umbrella of social and cultural services, studies highlighted trust and relationships, culture preservation, and social capital through social gatherings.

Trust and relationships

Public libraries facilitate communication between refugees and host communities, nurturing trust and relationships. Recognized as transparent, democratic, and safe spaces, they play a crucial role in integrating vulnerable refugees. Vårheim (2014) highlights how library programs, like homework support and language practice, build social trust and capital. Studies in Norway and the U.S. reveal that public libraries generate social capital and foster increased societal trust among individuals from diverse backgrounds. Kennan et al. (2011) and Lloyd et al. (2013) emphasize the link between refugees' information literacy skills and social integration, underscoring the pivotal role of public libraries in social inclusion and combating information literacy-related social exclusion.

Newcomers utilize public libraries as gathering spaces (Kosciejew 2019; Shepherd, Petrillo, and Wilson 2018), benefiting from personalized information provided by library staff. They perceive public libraries as hubs for democracy, experiencing a sense of belonging through library programs

(Rodriguez 2019). They engage with others and enhance their linguistic competence through library programming (Johnston and Audunson 2019).

Cultural Integration and Preservation.Language classes are crucial for refugees to assimilate new cultural concepts and integrate their cultural sentiments with others. Four articles emphasize the public library's role in fostering place attachment (Grace and Sen 2013; Kosciejew 2019; Rodriguez 2019; Shepherd, Petrillo, and Wilson 2018). Librarians facilitate multicultural activities and access to educational resources, aiding in cultural preservation (Shepherd, Petrillo, and Wilson 2018). Public libraries are perceived as bridges connecting refugees' culture, history, and experiences from their home country to the new one (Audunson et al., 2011). Kennan et al. (2011) focus on refugees' socio-cultural information behavior, identifying three phases: transitioning, settling in, and being settled, emphasizing the urgency of information sharing and communication in these stages.



Figure 8. The services and facilities of the public library for refugee users.

Political integration and capital

Public libraries' role in the political sphere was explored in only four of the 24 articles. These articles highlighted libraries as hubs for political awareness, offering citizenship education classes (Johnston and Audunson 2019) and supporting civic engagement (Serra and Revez 2023; Vårheim 2014). Public libraries potentially encourage civic participation through conversation classes (Johnston and Audunson 2019).

Physical environment integration through facilities

Four articles addressed place attachment, belongingness, and meeting places in library facilities. Shepherd, Petrillo, and Wilson (2018) Public libraries are described as peaceful, quiet, and relaxing. While most articles focused on libraries as social spaces, there was limited discussion about the quality of space, acoustics, and furniture regarding refugees' cultural preferences. Figure 8 illustrates all services and facilities.

RQ2: What are the strengths and weaknesses of public libraries in contributing to refugees' resilience through the perceptions of library service providers and patrons?

The 12 articles reviewed uniformly showcase refugees' overall satisfaction with public library services, highlighting three key positive aspects: library services (free access to internet, computer literacy courses, and book borrowing), the provision of a haven, and the fostering of a sense of belonging. However, patrons and service providers also identify barriers hindering refugees' adaptation and resilience. Key obstacles include limited resources, occasionally unwelcoming or unhelpful librarian attitudes, and inadequate physical conditions. Eight articles identified institutional barriers such as funding, infrastructure, staff limitations, and personal barriers such as location, space, language proficiency, eligibility, literacy, income, remoteness, transportation, and self-esteem. These findings highlight the challenges refugees face in accessing library services and suggest areas for improvement to enhance inclusivity.

Positive perception toward public Libraries

Shepherd, Petrillo, and Wilson (2018) found that borrowing educational materials, including books and DVDs, motivated refugees to visit public libraries frequently. Serra and Revez (2023) emphasized libraries' focus on social inclusiveness to meet displaced people's information needs. Van der Linden, Bartlett, and Beheshti (2014) explored the perceptions of African, Asian, and Latin American immigrants in Canada, revealing that library visits were often for communication, learning English, and accessing multilingual collections. According to Audunson et al. (2019a), female immigrants in

Norway considered public libraries a comforting haven during early settlement, providing a safe place to connect with other immigrants and natives.

Rodriguez (2019) identified public libraries as essential hubs for newcomers, particularly youth, who often find them more welcoming than schools. For instance, the Hartford Public Library partnered with the local school district to provide support for newcomers, including citizenship and legal aid programs. According to Martha, the director of the public school district, the library serves as a valuable resource, offering a wealth of information and opportunities for newcomers to explore. She emphasized that the library's central location in Hartford makes it easily accessible for individuals to engage with a variety of services, including those at nearby city hall.

Johnston (2019) highlighted that language cafes motivated immigrant women to meet on a regular basis to dance; they dance traditional dances from the women's home countries. Johnston (2018) highlighted the role of public library conversation programs in helping refugees navigate Swedish bureaucratic processes. One program facilitator described assisting a participant in securing a doctor's appointment, during which the facilitator acted as a translator between the refugee and the doctor. In another instance, the facilitator helped a different participant resolve an issue related to her Swedish identification number, a challenge that arose from her status as a political refugee. One of the participants stated in her study,

> I have also been looking for a job in Copenhagen because of my profession is very a specific situation and there are not many companies in Skåne so yeah, I have found a Swedish woman [a group facilitator at Språkhörnan] who told me of an office that can help me get advice, also, a guy from Chile gave me some tips for websites, Danish websites, for looking for a job (p.14)

Using Contact Theory as a lens, Johnston (2019) case-based study in Norway examines language cafes as a means of promoting immigrant integration. The study employs participant observation and questionnaires for both participants and volunteers. The findings demonstrate that programming helps reduce intergroup prejudice by fostering four key processes: learning about the out-group, changing behavior, generating affective ties, and reappraising the in-group. Additionally, the programming offers significant friendship potential, expanding social networks across intercultural lines and thereby supporting immigrant integration. These results underscore the value of language cafes in bridging social divides and facilitating community cohesion.

Van der Linden, Bartlett, and Beheshti (2014) noted that refugee women, in particular, valued library facilities designed for children. One refugee woman expressed her amazement upon discovering a dedicated children's section during her first visit, describing it as an experience that offered her son an opportunity she never had as a child. She felt that the library's children's area provided her family with a resource that was deeply meaningful.

Lloyd et al. (2013) showcased how libraries used visual materials in financial information sessions, helping refugees understand Australian currency through role-playing. In one session, a service provider described using a large board to visually categorize "wants" and "needs," allowing participants to physically place fake currency in the appropriate sections. This hands-on approach helped attendees grasp budgeting concepts more easily, especially since money and math can often be challenging. The provider emphasized that such interactive methods were more effective in helping people understand and retain the information.

Vårheim (2014) found that refugee students in Norwegian public libraries viewed these spaces as "safe and helpful" for homework and meetings, which fostered trust and comfort in engaging with others. One asylum-seeker shared how feelings of embarrassment and fear of rejection stemmed from coming from countries with limited education. This individual expressed uncertainty about how to communicate and questioned why others would be interested in them.

Negative perception toward public libraries

Van der Linden, Bartlett, and Beheshti (2014) revealed that refugees initially find Canadian public libraries intimidating, perceiving them as overwhelming places focused solely on books.

Salzano et al. (2022) underscored displaced individuals' concerns about library policies, particularly regarding privacy and data disclosure, which hinder their use of library services, including computer access.

Serra and Revez (2023) pointed out the absence of academic and professional training to support economic facilities for refugees in public libraries. Librarians stressed the need for targeted multicultural initiatives and highlighted challenges such as limited resources, language barriers, and the need for cultural empathy. They emphasized the importance of language classes and collaboration with public and private entities to better serve forced migrant communities, echoing calls for enhanced staff language skills and cultural competence (Johnston and Audunson 2019).

Overall, libraries serve as crucial hubs for integration, learning, and mutual understanding between refugees and host communities. Key themes include cultural information sources, trust, health information, social interaction, literacy, and social capital. Public libraries contribute to cognitive, social, economic, and political inclusion by offering language cafes, digital access, and safe spaces. Through informal conversations, cultural events, and training programs, public libraries also support social cohesion, community resilience, and a sense of belonging.

Table 5. Themes and authors' profiles for articles focused on PLIS.

Themes	Authors	Publications
Public Libraries as a Welcoming Environment	(Audunson et al. 2019a) (Audunson et al. 2019b) (Johnson 2012) (Kaeding, Velasquez, and Price 2017) (Vakkari etal., 2014) (Vakkari, 2016) (Vårheim et al., 2019) (Yoo-Lee, Heon Lee, and Velez 2013)	8
Creative, Learning, Performative, and Inspirational Space	(Audunson et al. 2019b) (Jochumsen, Rasmussen, and Skot-Hansen 2012) (Kawamoto and Koizumi 2023) (Vakkari etal., 2014) (Vakkari, 2016) (Vårheim et al., 2019) (Yoo-Lee, Heon Lee, and Velez 2013)	7
Therapeutic Environment	(Audunson et al. 2019b) (Brewster 2014) (Husaini et al. 2018) (Kaeding, Velasquez, and Price 2017)	4

Public library services as an inclusive learning environment

Twelve articles identified under public libraries as inclusive environments underscore public libraries as safe, social spaces and meeting venues, with two articles highlighting their role as therapeutic landscapes promoting psycho-physical well-being. Regarding the types of publications, most of these articles (10 out of 12) were published in LIS-related journals, underscoring this topic's importance within the library and information science field. Specifically, the Journal of Documentation is notable for publishing several



Figure 9. Keywords for the public library as a welcoming space.



Figure 10. Keywords for public libraries are creative, learning, performative, and inspirational spaces.



Figure 11. Public library as healing space.

articles (5 out of 12) on this topic, indicating its prominence in scholarly discussions about public libraries.

The articles cover a range of keywords, with "public libraries" being the most frequently mentioned, indicating a central focus on the role and impact of public libraries (Table 4). Other frequently mentioned keywords include "therapeutic landscape," "public sphere," and "library buildings," reflecting the

diverse characteristics of public library environments being studied. This keyword analysis underscores public libraries' significant role in fostering inclusivity and providing therapeutic environments, particularly for marginalized groups such as refugees.

RQ3: What are the key characteristics of libraries serving as spaces promoting refugee resilience?

Analysis of the 12 shortlisted articles addressing libraries as inclusive spaces (PLI) yielded 72 codes, 62 categories, 38 sub-themes, and 3 content-based themes through open, axial, and selective coding (Table 5; see Appendix 2). The findings identify three core characteristics of inclusive public libraries that support refugee resilience: (1) a welcoming and inclusive environment, (2) a creative, learning, performative, and inspirational space, and (3) a therapeutic setting. These themes are illustrated in Figures 9, 10, and 11.

Public libraries as a welcoming environment

Public libraries fulfill diverse roles as inclusive and welcoming spaces. Audunson et al. (2019a) emphasize the library as a "public sphere" that provides a safe environment and relieves mental stress through supportive staff interactions. Public libraries should uphold international standards promoting freedom of expression and civic engagement in multicultural societies, fostering social recognition and inclusivity.

Kawamoto and Koizumi (2023) proposed a conceptual model of the "library as a place," in which the authors highlighted three symbolic infrastructures – wisdom, heritage, and community – as the core pillars of libraries as public spaces. They also identified 11 foundational categories supporting this model: creativity, intelligence, novelty, cultural history, neutrality, equality, empowerment, publicness, privacy, sociability, and friendliness. These elements form the essential foundation of libraries as public places. Johnson (2012) argued "providing a place where community members can mix and mingle, get to know one another, and reinforce previous relationships is one of the fundamental ways libraries contribute to community social capital" (p. 58). Yoo-Lee, Heon Lee, and Velez (2013) highlight the diverse functionalities of public libraries, facilitating collaborative learning and social interaction (Figure 9).

Public libraries as creative, learning, performative, and inspirational spaces

The four-space model, which includes learning, meeting, performative, and inspirational spaces, is essential for designing inclusive public libraries (Jochumsen, Rasmussen, and Skot-Hansen 2012). These libraries serve as community hubs that foster social connections among diverse individuals, aligning with literature on refugees' interactions with libraries. Interior design considerations, such as vibrant colors and creative access features like

interactive games and multimedia installations, promote engagement and innovation (Hashim, Rehan Baharom, and Affandi Zakaria 2017; Jochumsen, Rasmussen, and Skot-Hansen 2012). Providing multilingual and culturally relevant information empowers marginalized individuals, supporting their integration into education and society. Public libraries also act as safe havens for those facing financial challenges, offering opportunities for self-empowerment, particularly in terms of mental health. Achieving inclusivity involves fostering lifelong learning, nurturing interpersonal relationships, and celebrating diverse cultures, highlighting the importance of involving displaced populations in designing and evaluating library services and programs (Figure 10).

Public libraries as a therapeutic environment

Public libraries are increasingly recognized as therapeutic environments that promote mental well-being (Brewster 2014). They provide safety, comfort, and empowerment, influencing the emotional and psychological resilience of their users (Salzano et al. 2022). Articles like Husaini et al. (2018) in Malaysia highlight the importance of physical comfort, leisure activities, and effective

Table 6. Public library design elements for inclusiveness and therapeutic environment.

Themes	Public library design elements	References
Inclusivity and Welcoming Spaces	Vibrant colors, creative access features (interactive games, multimedia installations), and accessible layouts.	Hashim, Rehan Baharom, and Affandi Zakaria (2017); Jochumsen, Rasmussen, and Skot-Hansen (2012)
Social Connection and Community Hubs	Meeting areas, collaborative learning spaces, and multipurpose rooms for group activities.	Yoo-Lee, Heon Lee, and Velez (2013); Audunson et al. (2019a)
Emotional and Mental Well-Being	Comfortable seating, quiet zones, natural lighting, therapeutic environments.	Brewster (2014); Salzano et al. (2022)
Cultural Relevance and Multilingualism	Multilingual resources, culturally themed decor, programs celebrating diverse cultures.	Jochumsen, Rasmussen, and Skot-Hansen (2012); Kaeding, Velasquez, and Price (2017)
Educational and Lifelong Learning	Learning spaces, access to technology, multimedia educational tools, maker spaces.	Jochumsen, Rasmussen, and Skot-Hansen (2012); Husaini et al. (2018)
Accessibility and Universal Design	Accessible collections, ramps, elevators, tactile signage, inclusive programming for diverse needs.	Kaeding, Velasquez, and Price (2017); Husaini et al. (2018)
Civic Engagement and Public Sphere, Political	Bulletin boards for community events, spaces for civic discussions, freedom of expression areas.	Audunson et al. (2019b); Kawamoto and Koizumi (2023)
Integration and Empowerment	Programs for skill-building, language classes, career resources, and self-help materials.	Johnson (2012); Yoo-Lee, Heon Lee, and Velez (2013)
Safety and Security	Safe play areas for children, privacy-friendly zones, secure entry points.	Kaeding, Velasquez, and Price (2017); Jochumsen, Rasmussen, and Skot-Hansen (2012)
Leisure and Creativity	Leisure reading areas, art installations, spaces for performances and creative workshops.	Yoo-Lee, Heon Lee, and Velez (2013); Husaini et al. (2018)
Collaboration and Outreach	Partnering with local organizations, proximity to marginalized communities, mobile libraries.	Kaeding, Velasquez, and Price (2017); Audunson et al. (2019a)
Sustainability and Resilience	Eco-friendly materials, energy-efficient lighting, adaptive reuse of spaces.	Salzano et al. (2022)

library policies in enhancing users' satisfaction. Kaeding, Velasquez, and Price (2017) emphasize the need for inclusive design practices in public libraries, catering to diverse needs such as those of disabled children, through accessible collections, physical accommodations, and inclusive programming. These efforts underscore the role of libraries not only as educational and informational resources but also as spaces that promote emotional well-being and community engagement (Figure 11).

Collaboration with local, national, or international entities is essential for planning and designing inclusive public libraries. It is crucial to consider the geographic proximity of displaced populations to ensure their active participation in library activities (Kaeding, Velasquez, and Price 2017). Effective promotion of library services, optimal utilization of human and financial resources, and fostering strong community ties are priorities in creating inclusive public libraries. Audunson et al. (2019a) emphasize that libraries serve as critical hubs for accessing citizenship information and engaging in public sphere discussions.

Overall, the key public library design themes that enhance inclusivity, social connection, education, and community well-being. Design elements such as vibrant layouts, multilingual resources, therapeutic environments, and accessible features support diverse user needs, while spaces for collaboration, civic engagement, and creativity foster community integration (Table 6). Additionally, sustainable and secure designs ensure resilience and safety, emphasizing public libraries' roles as inclusive hubs for learning, empowerment, and cultural celebration.

Theorizing and interpretation

This section interprets the role of public libraries as inclusive learning spaces that contribute to the integration and resilience of refugees in resettlement contexts. By examining both library services and physical environments, the findings suggest that resilience cannot be achieved through services alone; the spatial design of libraries must also promote safety, comfort, and belonging. A conducive environment for learning, socializing, and emotional recovery is essential for refugees to feel integrated into their new communities. Two key domains emerged: (1) the role of public libraries in fostering refugee resilience and immigrant integration, and (2) the importance of libraries as inclusive learning environments. While public library services (e.g., literacy programs, digital inclusion, civic support) are central, these must be complemented by spatial characteristics that foster a sense of identity and belonging. Without safe and welcoming physical spaces, the benefits of such services may not be fully realized.

This interpretation draws on two theoretical frameworks: (1) community resilience about public libraries and (2) integration theory. Though distinct,



Figure 12. Inclusive public library design model.

resilience, integration, and inclusion concepts often overlap in refugee contexts. Studies like Audunson et al. (2011) show how public libraries cultivate bridging social capital through group activities, language programs, and informal interactions, particularly among immigrant women.

The review also found that the most frequently cited facilities contributing to refugee resilience (RQ1) were: (1) information hubs, (2) language learning centers, and (3) social interaction spaces. Libraries also offer economic opportunities through job training and resume support (Igarashi, Koizumi, and Widdersheim 2023a). However, challenges remain – accessibility, funding, and staff capacity, which can limit effectiveness.

Regarding perceptions (RQ2), refugees generally view libraries as democratic and inclusive spaces that support citizenship and community engagement. Programs like ESL classes and storytelling were positively perceived, while issues were noted in multilingual services, physical space quality, and staff sensitivity. The study further revealed the impact of spatial design on resilience (RQ3). Inclusive, welcoming, and therapeutic environments – such as quiet reading corners, gender-sensitive spaces, and access to natural light – enhance refugees' comfort and emotional security. Table 6 and Figure 12

summarize these spatial and service-based themes, forming the basis for a conceptual design model of an inclusive public library.

Information and language facilities are highlighted as crucial aspects of public libraries in refugee studies. Refugees utilize internet access, storytelling programs, and English classes to overcome language barriers and enhance their information literacy for integration. Media, digital information, and connectivity prove valuable for disaster resilience, emphasizing the importance of people's knowledge and skills as safety nets (Berkes and Ross 2013; Norris et al. 2008). Several comprehensive literature reviews were found on public library services to immigrants and refugees and their information experiences (Grossman et al. 2022; Kosciejew 2019).

This study also indicated that the library contributed to generating *social capital* through adaptation and promoting inclusion. Social capital and social bonding through public library facilities are extensively discussed in both public library and refugee studies. Brewster (2014) recognized public library facilities as open, welcoming, and democratic spaces, while Aabø and Audunson (2012) noted libraries as first, second, and third place. Audunson, Essmat, and Aabø () found in their study that libraries play a key role in building social capital and promoting inclusion for immigrants' women in Migrants in Norway. They also stated in their study that immigrants' women connected with the majority population through spontaneous interactions (e.g., in the newspaper corner or video shelves) and organized activities like homework groups or mother-child sessions. These interactions, especially when refugees showcased cultural differences, fostered the bridging of social capital. The library also helped build trust in Norwegian society, while still providing a space for bonding among refugees, particularly women from the same country. This is also found in the other study where researchers found that U.S. public libraries' modes of information delivery play a pivotal role in fostering social inclusion and a sense of belonging among immigrants (Johnston 2019). We also found that libraries as places for solace and comfort (Audunson, Essmat, and Aabø ; Rodriguez 2019), offering peaceful areas for relaxation (Shepherd, Petrillo, and Wilson 2018) and serving as leisure spaces (Salzano et al. 2022) also hint the public library as therapeutic space.

Cultural integration is also another highlighted service we have found in the study. The literature advocates for the incorporation of socio-cultural inclusion themes in public libraries to assist refugees in integrating into new societies, aligning with resilience theory (Salzano, Hall, and Webster 2020). Caidi and Allard (2005) made the same point when they stated that "The inclusion of archival material of marginalized and vulnerable communities and other groups such as immigrants enables the creation of a public shared history that contributes to feelings of inclusion within a culture as well as promoting social legitimacy by way of tangible documentary records" (p. 320). Social communication activities are identified as key to community recovery

(Manyena 2006), media of adaptation, which strengthen social networks within and beyond the community (Cutter et al. 2008).

Economic aspects of public libraries for immigrants and refugees were evident in the literature. For example, Pilerot (2018) emphasizes that the library is, in turn, conceived 1) as a means for integration, 2) as a free and inclusive meeting place, and 3) as a promoter of democracy. This highlights the role of public libraries in promoting economic inclusion by reducing financial barriers to essential services, and making refugees feel at home in the public space and helping them to connect with society. In addition to providing affordability, libraries support refugees' economic resilience through employment assistance, resume writing support, skills training programs, and free access to computers and the internet – services that are critical for navigating the job market and building self-sufficiency (Jochumsen, Rasmussen, and Skot-Hansen 2012; Yoo-Lee, Heon Lee, and Velez 2013). This also aligns with resilience theory (Norris et al. 2008), which posits that access to diverse resources and livelihood opportunities strengthens adaptive capacity.

Public libraries serving the general population and refugee communities must be thoughtfully designed to support emotional well-being and inclusivity. Therapeutic qualities in the library's physical environment – such as access to natural light, calming colors, and visual transparency – play a crucial role in fostering comfort, trust, and psychological safety (Husaini, Noordin, & Shuhidan, 2015; Husaini et al., 2017). These features are essential for users' comfort and can also provide communal spaces where refugee users may be experiencing stress or disorientation. Safety and security also emerge as foundational pillars of therapeutic library design that support refugee resilience, as demonstrated in studies by Jochumsen, Rasmussen, and Skot-Hansen (2012), Kaeding, Velasquez, and Price (2017). Furthermore, spatial organization matters: Pilerot's (2018) highlights the need to reconfigure library layouts to separate quiet study zones from dynamic, interpreter-assisted activities, ensuring that libraries remain accessible and comfortable for diverse user groups. This aligns with Vårheim's (2011) argument that libraries must actively support democratic engagement and community cohesion through both services and spatial strategies. Collaborative efforts involving library staff and patrons are therefore critical to ensuring that refugee needs are reflected in both programming and physical design.

Refugee resilience in a new country or displacement relies on information practice, social bonding, and economic engagement. Collaborative efforts involving library staff and patrons are essential to ensuring that public library services reflect and respond to refugees' diverse needs, as stated in the study of Pilerot (2018). While the impact of these efforts may not always be immediately visible, literature consistently highlights the interdependence between social and material-economic dimensions of integration. Building on the

thematic analysis of inclusive public library practices (Table 6) and the identified service and facility codes (Appendix 1, aligned with RQ1), this study proposes a conceptual design model (Figure 12) that illustrates how inclusive public libraries can foster refugee integration and resilience during resettlement. Figure 12 Inclusive Public Library Design Model for Refugee Resilience. This conceptual model places "Refugee Resiliency in Public Libraries" at the center, surrounded by six interconnected domains: socio-cultural inclusion, economic inclusion, cognitive inclusion, political inclusion, leisure and recreational space, and safe and equitable space use. These domains reflect the multidimensional ways libraries support refugee adaptation and integration. Encircling all components is the physical environment, which serves as the structural foundation enabling access, interaction, and safety. Each domain integrates specific functions – such as language learning, job readiness, civic engagement, and therapeutic space – underscoring the role of libraries not only as service providers but as inclusive environments that foster belonging, empowerment, and resilience

Public libraries support socio-cultural inclusion by promoting cultural awareness and providing spaces that celebrate diverse histories, fostering a sense of belonging through social interaction, which is also aligned with the IFLA's guideline, where IFLA advocates for ethnic minority inclusion in library spaces and services, promoting fairness and equity of access, as cited in Pestell et al. (2009)'s study. A new study has found that cultural identities primarily focus on library programs that respond to different patron groups' needs, such as readers' advisory services for immigrants and mobile libraries for rural children in Taiwan (Sung and Bamkin 2023).

Cognitive inclusion encompasses health and well-being, education, and lifelong learning. Several works reviewed emphasized the importance of building sustained relationships between libraries and immigrant communities through an inclusive program (Grossman et al. 2022; Johnson 2012; Vårheim 2017). These values are echoed in the egalitarian goals of Library and Information Science (Honma 2005) and the UN's vision (United Nations Department of Economic and Social Affairs 2016).

Libraries address political inclusion through resources that support civic engagement, such as citizenship information and spaces for community discussions also refer the word "public library as is a powerful, democratizing institution with a recognizable global Brand" align with the IFLA-UNESCO Public Library Manifesto (2022), play a pivotal role in supporting refugees' adaptation to new environments.

We also have included the economic inclusion by offering programs that enhance refugees' economic integration (Diaz 1993), including entrepreneurship resources, skills development, and financial literacy initiatives with following recommendations of Urban Libraries Council report by Manjarrez et al. (2007) highlights four ways public libraries promote economic

development: fostering long-term success through early literacy services, equipping workers with technological skills via employment and career programs, supporting small businesses by reducing market entry barriers, and acting as catalysts for physical development through library buildings.

Leisure and recreational spaces – such as gender-sensitive zones, children's play areas, and rest facilities – offer relaxation, comfort, and family bonding opportunities. Safe and comfortable environments, often called a therapeutic environment, are achieved through thoughtful design elements such as appropriate lighting, acoustics, temperature control, and color. These features create a healthy atmosphere that supports emotional security and inclusion. This aligns with the Inclusive Libraries project (Cruz 2018), emphasizing accessibility for all users, especially those with physical, intellectual, or sensory disabilities. The IFLA's updated 2024 guidelines on "Accessible Libraries and Services for Everyone" further reinforce the need for equitable design and inclusive service delivery (IFLA 2024).

The outermost ring – physical integration – symbolizes how inclusive design principles support all domains by enabling physical and emotional access to services and spaces, also related to other studies, which show that public libraries are considered a third space (Audunson et al. 2019a), and in some cases, as substitute homes for vulnerable groups such as the homeless in New Zealand (Adams and Krtalić 2022). Crucially, the model situates public libraries within a broader support ecosystem. While libraries offer vital access to education, civic resources, and community programming, their effectiveness is enhanced through collaboration with workforce development agencies, legal services, health providers, and refugee resettlement agencies. These partnerships allow libraries to serve not only as service points but as connectors – expanding their capacity to meet the specific needs of refugee communities. This study draws on resilience theories by Berkes and Ross (2013) and Norris et al. (2008), emphasizing that resilience emerges from the interaction of social, economic, institutional, and personal support systems. When designed inclusively, public libraries can serve as trauma-informed, multifunctional environments that promote healing, empowerment, and long-term adaptation for refugees in host societies.

Reflections and evaluations

This study's findings offer theoretical and practical contributions through synthesizing and interpreting existing research. While this review does not introduce new empirical findings, it organizes and integrates previously scattered knowledge about public libraries' roles in supporting refugee resilience. The study refines current understanding by identifying and thematically analyzing how libraries' existing services and spatial elements align with refugee needs. For instance, although Jochumsen, Rasmussen, and Skot-

Hansen (2012) The "four-space" model laid necessary groundwork for public library design, but it did not specifically focus on refugee patrons. This review extends that framework by centering on refugee experiences and needs.

On a humanitarian level, the study offers a unique lens by connecting concepts of resilience and integration to the context of refugee use of library spaces. While past studies have touched on these elements individually, few have examined them holistically or within a resettlement framework. The proposed inclusive public library design model, developed from this literature synthesis, provides a conceptual guide that frontline practitioners, designers, and librarians can use to support refugee communities better. Rather than introducing entirely new data, the study's value lies in critically consolidating insights to inform inclusive design and service strategies for libraries in refugee contexts.

Strengths and weaknesses

This study offers several notable strengths. First, it is grounded in a comprehensive literature review that integrates two distinct but overlapping bodies of work: (a) public libraries and refugee resilience, and (b) public libraries as inclusive learning environments. This dual focus provides a more holistic understanding of how libraries can support refugee integration. Second, the study synthesizes these findings into a conceptual design model tailored for libraries serving refugee populations, offering a valuable framework for future research and practice.

However, the study also has several limitations. It draws exclusively secondary data, relying on a limited set of databases and existing literature, which may have excluded broader or emerging perspectives. Furthermore, it does not include primary data from refugees, library users, or library professionals, limiting the depth of experiential insight. The literature reviewed often treats refugees as a homogeneous group, without attention to age, gender, or other identity-based differences. It also incorporates studies on immigrants more broadly, which may dilute the focus on refugees' distinct needs and experiences. Additionally, the study adopts a global perspective without country-specific contextualization of resettlement processes.

Importantly, public libraries do not operate autonomously. They exist within larger governance, funding, and organizational structures that can significantly shape their capacities and limitations. These systemic factors were not directly addressed in the analysis but are crucial to understanding the feasibility of implementing inclusive library models. Finally, while the proposed inclusive library design model presents a valuable conceptual framework, it has not yet been empirically tested.

Thus it's practical applicability across different settings remains to be validated.

Conclusion

This study underscores that inclusive learning environments in public libraries for refugees rely not only on the range of services and resources offered but also on the physical and spatial qualities of the library itself. A sense of safety, comfort, and belonging is essential for fostering refugee resilience and integration. Drawing from existing literature, the proposed conceptual model highlights the importance of aligning spatial design with social, cognitive, economic, and political inclusion. While this review does not introduce new empirical findings, it integrates and reinterprets existing research to offer a design framework that may guide future practice.

The Asset-Based Community Development (ABCD) model and the Community Rhythm approach (ALA 2014) offer additional value by promoting localized, identity-affirming strategies, also aligning the study of (Naderi 2024). These approaches encourage libraries to recognize refugees' talents, goals, and values as active contributors to their communities (García 2020). However, libraries function as part of a broader ecosystem of services. Their efforts complement those of government agencies, educational institutions, and social service organizations in supporting refugee populations.

Future directions

Future research should incorporate primary data from refugees and library users to validate and refine the proposed model. Emphasis should be placed on examining differences across refugee demographics (e.g., age, gender) and resettlement contexts. Further inquiry into how broader institutional, funding, and policy structures influence library inclusivity is also essential. Collaborative efforts between public libraries, humanitarian agencies, and local governments are needed to translate inclusive design principles into practical, context-sensitive interventions that support refugee adaptation and resilience.

Notes

1. The ability to act independently and freely.
2. Confidence in one's own capability to carry out tasks and manage potential situations.

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Research Interest:
Trauma-informed design
Refugee communities
Environmental Quality
Community Resilience
Social Equity

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Appendices

Appendix 1: Categories, sub-themes, and themes of the reviewed literature on PLR

Articles	Codes (67)	Categories (59)	Themes	
			Sub-themes (35)	Themes (05)
Annemaree Lloyd et al. (2013)	• Cultural and need-based Information types and sources • Service provider behavior	• Culture-appropriate information • Trusted and reliable sources of information	• Trust and leadership • Social inclusion • Information, knowledge, and services	• Cognitive inclusion • Social inclusion
Annemaree Lloyd (2014)	• Health information	• Cultural beliefs and information practices • Health resilience	• Socio-cultural inclusion • Information, knowledge, and services	• Cognitive inclusion • Social inclusion
Audunson et al., 2011	• A place for consolation and comfort • An arena for integration • Learning about the new country • As a meeting place to bridge the country and culture of origin	• Social place/Meeting place • Information and knowledge • Trust and social capital • Integration/inclusion with own and new culture/sense of belongingness	• Socio-cultural inclusion • Information, knowledge, and services • Physical place/place attachment	• Cognitive inclusion • Socio-culture inclusion • Physiological inclusion
Grace and Sen (2013)	• Computer and language literacy • Permanent Place • Adaptation to economy and environment	• Library as space of places • Language literacy and information	• Socio-cultural inclusion • Economic opportunity/inclusion • Physical space	• Cognitive inclusion • Social inclusion • Economic inclusion • Physiological inclusion
Hashim, Rehan Baharom, and Affandi Zakaria (2017)	• Access to literacy • Access to recreational activities	• Literacy and knowledge • Social capital	• Social inclusion • Education (information, knowledge, and services)	• Cognitive inclusion • Social inclusion

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Articles	Codes (67)	Categories (59)	Themes	
			Sub-themes (35)	Themes (05)
(Igarashi, Koizumi, & Johnston, 2023b)	• Oslo's public library system's (Deichman) programming and events • language cafes, classes, story hours, book clubs	• Reading base • Conservation program dativizes	• Digital facilities • Social connection • Cultural programs	• Information integration • Economics • Social connection
(Igarashi, Koizumi, and Widdersheim 2023a)	• Trust in librarians and public libraries • Conversation-based programs • meeting place	• free use of digital devices • Social division	• Social division	• Social inclusion
(Johnston 2016)	• Space for social interaction • program offers a unique opportunity • program supports integration through information exchange during the informal conversations	• Social connection • Conversation-based programming • Information grounds • Integration	• Social • Economics • Personal • Educational • Political Integration	• Integration • Social capital • Information
Johnston (2018)	• Knowledge of opportunities and responsibilities • Understanding of Swedish society • Enhance social capital • Language learning support • New tools and services	• Socio-culture bonding • Information and knowledge • Economic opportunity	• Social inclusion • Sense of belongingness • Economic opportunity • Information and knowledge	• Cognitive inclusion • Social inclusion
(Johnston 2019)	• Norway on language cafes and integration • conversation-based programming	• Informal Conversation • Meeting place • Cultural program facilities	• Integration • Friendship	• social capital
Johnston and Audunson (2019)	• Political integration • Social networks	• Political integration • Social/public place/sphere • Social capital	• Political integration • Social inclusion	• Political integration • Social inclusion
Kennan et al. (2011)	• Use of technology • Language and knowledge • Social bonding • Trust and reliability	• Information tools, literacy, and knowledge • Social capital	• Social inclusion • Information, knowledge, and services	• Cognitive inclusion • Social inclusion

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Articles	Codes (67)	Categories (59)	Themes	
			Sub-themes (35)	Themes (05)
Kosciejew (2019)	• Meeting place, social cohesion, literacy, and information	• Social inclusion • Information, knowledge, and tools	• Social inclusion • Information, knowledge, and services	• Cognitive inclusion • Social inclusion
Rodriguez (2019)	• Hub of democracy • Safe place • Language literacy and information • Sense of belongingness • Project/knowledge-sharing activities with other newcomers	• Social and learning place • Sense of belongingness	• Social inclusion • Sense of belongingness • Place attachment	• Social inclusion • Physiological inclusion
Salzano, Hall, and Webster (2020)	• Socio-cultural/cultural factors as essential influences on resource use in public libraries	• Socio-cultural beliefs and information practice	• Socio-cultural inclusion • Education (information knowledge and services)	• Cognitive inclusion • Social inclusion
Salzano et al. (2022)	• Social inclusion • Information world • Cultural background influence	• Cultural beliefs and information practice	• Socio-cultural inclusion • Information knowledge and services	• Cognitive inclusion • Social inclusion
Salzano et al. (2022)	• Provide leisure facilities, information needs, and supporting literacy and learning	• Literacy, knowledge, and information • Social space and facilities	• Education (information knowledge and services, information needs supporting literacy and learning) • Social inclusion (social and public place) • Leisure facilities	• Cognitive inclusion • Social inclusion
Scott (2011a)	• Social inclusion/integration • Information knowledge and tools • Economic facilities	• Cultural appropriate information knowledge and tools • Economic facilities integration	• Socio-cultural inclusion • Economic facilities integration • Information knowledge and tools	• Cognitive inclusion • Social inclusion • Economic inclusion

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Articles	Codes (67)	Categories (59)	Themes	
			Sub-themes (35)	Themes (05)
Serra and Revez (2023)	• Information needs • Access to resources in foreign languages (Books, newspapers, and magazines) • Library as democratic spaces • Meeting place • Training and inclusive personal strategies of public librarians	• Social inclusion (Social and public place) • Education (Information, knowledge, and services) • Education (Trust and leadership (training to librarian)	• Social inclusion • Education and information inclusion • Place attachment	• Cognitive inclusion • Social inclusion
Shepherd, Petrillo, and Wilson (2018)	• As a place to build social capital • Libraries as peaceful, quiet places to relax • Language literacy and information services (computer literacy)	• Social space for social capital • Language literacy	• Social inclusion • Information, knowledge, and services • Physical space	• Cognitive inclusion • Social inclusion • Physiological inclusion
Van der Linden, Bartlett, and Beheshti (2014)	• An intimidating place for newcomers • Settlement-themed workshops and cultural events • Language classes	• Trust in information • Language literacy and activities • Social integration	• Trust and leadership • Social inclusion • Information, knowledge, and services	• Cognitive inclusion • Social inclusion
Vårheim (2014)	• Meeting place/Social place • Computer and language literacy • Facilitating integration • Helping each other	• Social place/Meeting Place/ Integration with business/ society • Social capital • Language and information tools • Economic opportunity	• Social inclusion • Information, knowledge, and services • Economic opportunity/inclusion	• Cognitive inclusion • Social inclusion • Economic inclusion
(Vårheim 2016)	• Trust in the library institutions • Social capital contributes to the general resilience of the community	• Social connection • Meeting • Discussion	• Social capital	• Social capital • Community resilience
(Vårheim 2017)	• Information sharing • Social meeting • Cultural programs and event	• Community resilience • Information resilience • Cultural resilience	• Community resilience	• Information resilience • Cultural resilience

Source: Authors, 2023.

Appendix 2: Categories, sub-themes, and themes of the reviewed literature on PLI

References	Codes (72)	Categories (62)	Subthemes (38)	Themes (03)
Audunson et al. (2019b)	• Access to information and social inclusion • Censorship and intellectual freedom • Integration of social media in library services • Libraries as civic places and spaces	• Social inclusion and equal access to information • Access to internet and digital resources • Libraries and freedom of expression • Libraries, social media, and technological impact	• Public library and the public sphere • Digital inclusion • Library services for marginalized groups • Libraries as democratic spaces	• Social Inclusion and Equal Access to Information; democracy and social capital.
Audunson et al. (2019a)	• Access to knowledge and literature; • Promoting creativity and innovation (maker space) • Community engagement (bumping into friends and neighbors) • Social activities in the library (visiting with friends, family, or colleagues) • Citizen information and engagement	• Libraries as public sphere • Meeting place • Makerspace • Cultural heritage • Institutional trust • Citizenship information	• Meeting places • Arenas for public debate • Public sphere institutions	• Inclusive environment • as Social Space
Brewster (2014)	• Libraries are seen as safe and non-challenging spaces where participants feel comfortable. • Libraries provide access to educational materials and resources. • Engaging with library materials serves as a distraction from mental health issues. • Libraries offer the freedom to choose and explore materials without judgment.	• Mental health and well-being • Libraries are seen as open and welcoming spaces that encourage visits. • Emotional support and recovery • Libraries are seen as open and welcoming spaces that encourage visits. • Personal growth and empowerment	• Library as familiar, open and welcoming. • Library as comforting and calming • Library as empowering	• Library Personal Empowerment • Therapeutic space

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References	Codes (72)	Categories (62)	Subthemes (38)	Themes (03)
Husaini et al. (2018)	• Non-physical: non-climatic factors (light, ventilation, smells, noise) • Non-physical: climatic factors (temperature, radiation, humidity) • Physical: natural ones (water, vegetation, topography) • Physical: artificial elements (body, flooring, furniture)	• Library social inclusion • Library services & facilities • Supernatural healing power • Feeling of well-being	• Library natural/ built environment • Library social environment • Library spiritual environment	• Library Therapeutic Space
Jochumsen, Rasmussen, and Skot-Hansen (2012)	• Learning opportunities • Meeting and interaction • Creativity and innovation • Meaningful experiences and aesthetic diversity • Role in the experience of society and economy • Creation and co-creation of artistic expressions • Support for digital natives and creative activities • Free access to information and knowledge • Support for personal learning needs	• Library as a cultural and knowledge hub • Platforms for social interaction and debate • Multicultural society	• Inspiration space • Learning space • Meeting space • Performative space	• Inclusive as social space, • Learning Space • Creative Space and Performative Space
Johnson (2012)	• Building personal relationships • Trust between library workers and patrons • Connecting patrons to library resources • Helping patrons with external resources • Library workers as valuable social capital assets • Libraries as informal community hubs • Libraries as safe spaces	• Library as a meeting place • The library is a safe place to go • Library as a place • Reducing social isolation • Relationships and building trust	• Relationships and trust • Special assistance • Community interaction • Safe haven • Linking resources	• Social Space and inclusive

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References	Codes (72)	Categories (62)	Subthemes (38)	Themes (03)
Kaeding, Velasquez, and Price (2017)	• Staff training • Various types of programs • Inclusivity of programs • Physical barriers (space and equipment) • Economic barriers (fees and fines) • Staff attitudes and sensitivities • Physical environment • Economic constraints • Sociocultural perceptions	• Easily accessible • Way finding • Community needs • Staff behaviors	• Accessible and inclusive • Children's library services	• Inclusiveness
Kawamoto and Koizumi (2023)	• Lifelong learning • Helping with homework, libraries provide access to online resources • "public sphere," • Storehouses for information • Easy access for everyone, including disabled users, with plenty of parking space. • For democracy in the habermasian sense. • Uniformly open to children and young people.	• Intelligence • Creativity • Novelty • Culture and history • Neutrality • Equality • Empowerment • Publicness • Privacy • Sociability • Friendliness • Openness	• Intellectual atmosphere • Generating social capital • Supporting diversity	• Inclusive space • Social Space • Educational Space • Creative • Learning
Vakkari etal., 2014	• Reading and self-education • Travel and cultural activities • Health and wellness • Formal education and government policy	• Education • Health benefits • Social benefits • Cultural benefits • Economic facilities	• Education • Cultural activities • Everyday activities work and business	• Social Space and inclusion • Learning Space

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References	Codes (72)	Categories (62)	Subthemes (38)	Themes (03)
Vakkari, 2016	• Health • Travel and vacation and social relations. • Finding educational opportunities • Completing formal education (acquiring a degree); and self-education during leisure time. • Executing specific work tasks; and • Developing job skills (combined with work-related educational • Cultural activities (e.g. Going to the theater or a concert); • Creative activities (e.g. Playing an instrument or singing); • Outdoor activities (combined with interest in nature); • Interest in history or society	• Leisure activities • Everyday activities • Education • Work	• Health benefits • Education support • Social inclusion	• Social Space • Educational Space
Vårheim et al., 2019	• Public libraries as meeting places for social inclusion and dialogue. • Building social capital and acting as gateways to the public sphere. • Public sphere through knowledge organization activities. • Promoting community building and supporting creativity and social engagement. • Supporting libraries as venues for public debate. • Commercialization of digital rights and its impact on the public sphere.	• Community • Knowledge organization • New tools and services • Institutional structures and practices • Management and funding	• Digital rights management • Legislation and policy • Social inclusion and integration	• Learning Space • Creative Space and Performative Space • Inclusive Space
Yoo-Lee, Heon Lee, and Velez (2013)	• Using computer/lab writing • Talking to people and gathering • Reading for classes • Using electronic resources	• Favorite spaces in the library • Preferences for social vs. Quiet spaces • Preferences based on activities	• Importance of flexible and adaptable spaces • Engagement in various activities.	• Learning Space • Inclusive Space

Source: Authors, 2023.