Drivers & Barriers of Travel Behavior People with Disabilities in Tourism: A Systematic Literature Review

Rahmat Priyanto[1], Kunkun Kurniawan[2], and Vanessa Gaffar[3]

[1,2] STP Ars Internasional, Jakarta, Indonesia
[3] Universitas Pendidikan Indonesia, Bandung, Indonesia
rahmat@ars.ac.id

Abstract. The purpose of this study is to analyze and examine the drivers and barriers of disability travel behavior in the context of tourism. This research is expected to provide knowledge in designing disability-friendly tourism. The methodology in this study uses a Systematic Literature Review approach using research articles obtained from 4 research databases, namely Ebsco, Scopus, PubMed, and Proquest. Based on the screening of 879 articles obtained, 43 articles were selected to be reviewed and analyzed regarding the drivers and barriers of disability travel behavior in tourism. The findings in this study consist of the theory used in the studies, the drivers and barriers of disability travel behavior in the context of tourism, which is divided into 3 categories, namely structural, interpersonal, and intrapersonal. This study is limited by relying on articles from four databases and is dominated by studies from developed countries. Future research should conduct empirical and cross-regional studies focusing on different types of disabilities. This study contributes to inclusive tourism by synthesizing drivers and barriers into structural, interpersonal, and intrapersonal dimensions to support tourism stakeholders in improving accessibility through better infrastructure and services.

Keywords: Travel Behavior, Disabled Tourist, Drivers, Barriers

1 Introduction

Tourism is a right for everyone and applies to all [1], especially for people with disabilities. Because people with disabilities are an underrepresented group in society [2], in the context of tourism, they are a group that receives less attention and is considered unimportant due to their numbers and financial capabilities [3, 4]. Tourism has not fully considered people with disabilities as an important element in management and development [5, 6], so tourism operations have not been able to fully fulfill the rights of people with disabilities in their tourism activities [7]. Study results show that the involvement of people with disabilities in tourism activities and travel is still low compared to that of non-disabled people [8, 9, 10, 11]. Furthermore, the Open Doors Organization found that people with disabilities in America made 73 million trips from

© The Author(s) 2026
R. Hurriyati et al. (eds.), *Proceedings of the 10th Global Conference on Business, Management, and Entrepreneurship (GCBME 2025)*, Advances in Economics, Business and Management Research 407,
https://doi.org/10.2991/978-94-6239-819-1_70

2013 to 2014. However, the number of non-disabled tourism trips exceeded 2 billion in 2014 alone [12]. Low participation and engagement in tourism are due to various barriers experienced by people with disabilities, even when they desire to participate [13, 14, 15, 16]. Other studies have shown that people with disabilities have a greater desire to travel for recreation, leisure, and socialization than individuals without disabilities [17].

To increase tourism participation among individual with disabilities, a nuanced understanding of their travel behavior is imperative [18]. Given that these behavioral patterns are significantly more complex than those of the non-disabled population and vary considerably based on the specific nature of the disability, a granular approach to analysis is required [9, 19]. Many studies have examined the drivers and barriers of travel behavior of people with disabilities [20, 21, 22]. However, many of these studies are related to the travel activities of people with disabilities within the context of their daily lives. In the context of tourism research, studies on the travel behavior of people with disabilities remain scarce, particularly in the articles that comprehensively addresses the drivers and barriers to travel behavior among people with disabilities within the tourism context. This study employs a Systematic Literature Review method to analyze and synthesize current findings, offering a holistic framework from many studies of the drivers and barriers encountered by people with disabilities in tourism.

2 Methods

This research adapts the Systematic Literature Review method as an overview of the research conducted. The database from 4 research databases, including EBSCO, Scopus, Pubmed, and Proquest. The articles' search was executed using Boolean string keyword queries across four predetermined scholarly databases, yielding an initial corpus of 879 potentially relevant records. In the PRISMA screening stage, 11 duplicate research articles were removed. Checking the titles and abstracts of all research articles ensured they were aligned with the research questions was determined. As a result, 868 research articles were removed, leaving 49 relevant articles. In depth analysis of the 49 research articles, from which the number of relevant research articles for further review and analysis is determined to be n = 43 research articles were then extracted to analyzing the barriers and drivers of travel behavior among tourists with disabilities.

3 Results and Discussion

3.1 Theoretical Perpective

The theoretical perspective in this study is derived from research articles that examines and discusses disability travel behavior in the context of tourism. The most widely used theory in the research articles is the Accessibility theory [23, 24, 25, 26, 27]. Furthermore, research articles examine disability travel behavior with a Tourist Experience theory approach [28, 29, 30, 31, 32]. Further research articles examines disability travel behavior using the Theory of Planned Behavior (TPB) approach,

perceived value, and perceived social support [33], then TPB collaborated with Complexity theory [34]. Research articles [35, 36] uses the Self-Determination theory approach. Research articles [37] uses the Affective Event theory approach. Research articles [38] uses a human dignity approach. Research articles [39] uses a participatory theory approach. Research articles [40] uses a recreational leisure activity theory approach. Research articles [41] uses a transformative service theory approach. Research articles [42] uses the social model of disability theory approach. Research articles [43] uses the responsible tourism theory approach. Research articles [44] uses a discrimination theory approach. Research articles [45] uses a positive psychology and game design theory approach. And finally, the research articles [46] uses an activity theory approach..

3.2 Drivers

Structural Drivers. Based on research articles [47], the factor that influences the travel behavior of tourists with disabilities is peer-to-peer accommodations. In other articles, the type of hotel is a consideration for tourists with visual impairments when traveling [28]. Furthermore, pre-visit information is an important factor that determines the travel engagement of tourists with disabilities [23, 48]. For people with mental disabilities, the support factor provided by transportation service providers is beneficial for smooth and comfortable travel [49, 50]. Tourist destination facilities that cater to the needs and desires of tourists with disabilities influence their willingness to travel [25, 28, 51, 52]. Furthermore, the ease of accessibility of tourist services is a significant factor in influencing the motivation of tourists with disabilities to travel [12, 23]. Technology is considered to provide significant benefits in fostering the interest of disabled travelers in travel [26, 45], especially for visually impaired travelers [45]. In the context of information, accessibility of information on destination websites is considered an important factor for disabled travellers [48]. Furthermore, a factor that affects the motivation of disabled tourists to travel is the existence of travel offers from various related institutions [53]. Furthermore, articles indicates that the presence of reliable travel organizers influences the decision of tourists with disabilities to travel, particularly in providing them with appropriate and comprehensive information [23].

Interpersonal Drivers. The results of a review of the articles [40, 54] show that the factor that encourages the travel behavior of people with disabilities is the Collective impact factor, namely a sense of wanting to meet new people, wanting to make the closest people happy and wanting to change other people's perceptions of people with disabilities. Research findings [48, 55] show that the support of the social environment, the presence of travel companions, and the attention provided by tourism service staff are factors that influence tourists with disabilities to carry out travel activities. The friendliness factor provided by service staff has a positive impact on travel [28]. Another factor is related to the family of tourists with disabilities, where the family becomes a facilitator that determines the decision to travel [39, 48]. For tourists with disabilities, aspects of service inclusion can enhance well-being and positively impact

travel behavior responses [41]. The primary driving factor of travel behavior for tourists with disabilities is the availability of staff and tourist service officers to assist with their needs during the trip [28].

Intrapersonal Drivers. Intrapersonal drivers that influence the behavior of tourists with disabilities, as per the research articles [33], include perceived social support and perceived value. Then [56] conveyed that self-determination is a facilitator for tourists with physical disabilities to travel, further emphasizing the importance of self-determination motivation [36] and intrinsic motivation as key aspects that influence the travel behavior of tourists with disabilities [12, 36, 54, 57]. Articles [48, 57] suggests that health and rehabilitation are factors that encourage travelers with disabilities to travel, accompanied by adequate financial resources [58]. Additionally, the perceptions of travelers with disabilities regarding the types of tourist activities they undertake and the places where they are conducted are factors that influence their travel decisions [31, 37, 59].

3.3 Barriers

Structural Barriers. Based on a review of the research articles, tourists with disabilities encounter obstacles in carrying out their tourist travel activities. The obstacles experienced are related to infrastructure, facilities, and destination environments that are not suitable for the needs of different types of disabilities [25, 26, 60, 61, 27, 28, 51, 62, 48, 52]. Furthermore, transportation constraints are widely reported in the research articles, such as inadequate transportation facilities, lack of access to transportation, or the lack of availability of transportation that people with disabilities can use to reach destinations [25, 27, 62, 61, 63]. For visually impaired people, tourist attractions in museums pose an obstacle due to the prohibition on touching and holding artifacts and statues [26, 27, 54]. This condition is exacerbated by the unavailability of tourist attractions specifically designed for people with disabilities to enjoy [48]. Furthermore, the use of technology poses an obstacle for disabled tourists when traveling [28, 57], especially for visually impaired individuals who struggle to use websites and travel booking applications [64]. Articles reviews [26, 48, 57, 63, 65, 66, 67] have conveyed obstacles to the availability of tourist information that is complete, easily accessible, and tailored to the wishes and needs of tourists with disabilities. Then, the rules and regulations of tourism travel are an obstacle for people with disabilities [44], especially after the COVID-19 pandemic, which exacerbated the limitations experienced by people with disabilities in their tourism activities [68].

Interpersonal Barriers. Based on findings from the articles [25, 26, 27, 28, 31, 58, 69] interpersonal constraints experienced by people with disabilities are due to the lack of ability and competence of tourism staff in serving different types of disabilities, one of which is the ability to communicate with hearing disabilities. Another obstacle faced by people with disabilities is the lack of empathy and apathy from staff and service workers for tourists, both in transportation and destinations [40, 50, 62]. Another

interpersonal barrier is the negative attitudes and views held by other travelers [27, 28, 44, 55, 67, 70], especially those of families traveling with individuals with mental disabilities [31, 38, 49]. For tourists with disabilities to travel is very dependent on the presence of a companion, so that the independence of travel is tough to do, given all the limitations that are owned, causing many failures of disability tourism trips due to the absence of a companion [23, 58, 48, 68, 71].

Intrapersonal Barriers. Based on a review of research articles [23, 43, 47, 53, 72], intrapersonal constraints affecting disability tourism travel behavior are due to economic or financial factors. Another factor that is the reason disabled travelers consider travel activities is due to the condition of their disability [27, 53, 62], in some surveys, the condition of disability causes the emergence of various negative emotions that hinder travel [27, 28, 31, 32]. The constraints are caused by health factors that make it impossible to travel [23, 72]. Travel constraints are caused by self-confidence [39, 73], resistance to new atmospheres and environments [39], and, finally, constraints resulting from cultural differences at the destination [28, 43].

4 Conclusion

This study reviewed 43 research articles based on the parameters set, including both the inclusion and exclusion criteria, as well as an in-depth analysis of the content and material of the research articles. Understanding how people with disabilities engage in tourism activities can be informed by identifying the drivers and barriers to their participation. This research categorizes the drivers and barriers into three categories, namely structural, interpersonal, and intrapersonal. This research can be an illustration for practitioners in understanding the behavior of tourists with disabilities, to further provide tourism that meets the rights of all disabilities.

This study has limitations as it employs a Systematic Literature Review approach that relies on the scope of articles within four major databases, as well as the predominance of studies from developed countries; consequently, the findings do not yet fully represent the global context and the diversity of disability types. Therefore, future research should develop more specific empirical studies based on the type of disability and conduct cross-regional analyses to enrich our understanding of the travel behaviour of people with disabilities. Theoretically, this study contributes to strengthening research on inclusive tourism through a synthesis of the drivers and barriers to travel behaviour, classified into structural, interpersonal, and intrapersonal dimensions. In practical terms, these findings can serve as a basis for tourism stakeholders in developing more accessible destinations through improvements to infrastructure, service quality, and the provision of disability-friendly tourism information.

References

1. Maitland, R., Miller, G.: Tourism and social policy. Annals of Tourism Research, 36, 1-20 (2009) (2009)
2. Benjamin, S., Bottone, E., Lee, M.: Beyond accessibility: exploring the representation of people with disabilities in tourism promotional materials. Journal of Sustainable Tourism, 29, 295-313 (2021)
3. Patterson, I., Darcy, S., Mönninghoff, M.: Attitudes and experiences of tourism operators in Northern Australia towards people with disabilities. World Leisure Journal, 54, 215-229 (2012)
4. Agovino, M., Casaccia, M., Garofalo, A., Marchesano, K.: Tourism and disability in Italy. Limits and opportunities. Tourism Management Perspectives, 23, 58-67 (2017)
5. Darcy, S., Buhalis, D.: Conceptualising disability. In: Access Tourism: Concepts and Issues. Channel View Publications, pp. 45-59 (2011)
6. Darcy, S., Cameron, B., Pegg, S.: Accessible tourism and sustainability: A discussion and case study. Journal of Sustainable Tourism, 18, 515-537 (2010)
7. Lee, B.K., Agarwal, S., Kim, H.J.: Influences of travel constraints on the people with disabilities' intention to travel: An application of Seligman's helplessness theory. Tourism Management, 33, 569-579 (2012)
8. Card, J.A., Cole, S.T., Humphrey, A.H.: A comparison of the accessibility and attitudinal barriers model: Travel providers and travelers with physical disabilities. Journal of Travel & Tourism Marketing, 37-41 (2014)
9. McIntosh, A.J.: The hidden side of travel: Epilepsy and tourism. Annals of Tourism Research, 81, 102856 (2020)
10. Gillovic, B., McIntosh, A., Cockburn-Wootten, C., Darcy, S.: Experiences of tourists with intellectual disabilities: A phenomenological approach. Journal of Hospitality and Tourism Management, 48, 155-162 (2021)
11. Cochran, A.L.: Understanding the role of transportation-related social interaction in travel behavior and health: A qualitative study of adults with disabilities. Journal of Transport and Health, 19, 100948 (2020)
12. Cole, S., Zhang, Y., Wang, W., Hu, C.M.: The influence of accessibility and motivation on leisure travel participation of people with disabilities. Journal of Travel & Tourism Marketing, 36, 119-130 (2019)
13. Small, J., Darcy, S.: Tourism, disability and mobility. In: Tourism, Inequality and Problems of Provision. CABI, Wallingford, UK, pp. 1-20 (2010)
14. Pascale, A.D., Meleddu, M., Abbate, T., Pellicano, M.: Is there a gender gap in the propensity to travel of people with disabilities? Journal of Travel Research, 62, 517-539 (2023)
15. Daniels, M.J., Drogin Rodgers, E.B., Wiggins, B.P.: Travel Tales: An interpretive analysis of constraints and negotiations to pleasure travel as experienced by persons with physical disabilities. Tourism Management, 26, 919-930 (2005)
16. Ee Kim, S., Lehto, X.Y.: The voice of tourists with mobility disabilities: insights from online customer complaint websites. International Journal of Contemporary Hospitality Management, 24, 451-476 (2012)
17. Mattson, J.W., Hough, J.A., Abeson, A.R.: Assessing existing and needed community transportation for people with disabilities in North Dakota. Citeseer (2010)
18. McKercher, B., Darcy, S.: Re-conceptualizing barriers to travel by people with disabilities. Tourism Management Perspectives, 26, 59-66 (2018)

19. Penfold, C., Cleghorn, N., Creegan, C., Neil, H., Webster, S.: Travel behaviour, experiences and aspirations of disabled people. National Centre for Social Research (NatCen) (2008)
20. Park, J., Chowdhury, S.: Towards an enabled journey: barriers encountered by public transport riders with disabilities for the whole journey chain. Transportation Reviews, 42, 181-203 (2022)
21. Park, K., Esfahani, H.N., Novack, V.L., Sheen, J., Hadayeghi, H., Song, Z., et al.: Impacts of disability on daily travel behaviour: A systematic review. Transportation Reviews, 43, 178-203 (2023)
22. Hwang, J., Li, W., Stough, L., Lee, C., Turnbull, K.: A focus group study on the potential of autonomous vehicles as a viable transportation option: Perspectives from people with disabilities and public transit agencies. Transportation Research Part F: Traffic Psychology and Behaviour (2020)
23. Gonda, T.: Travelling habits of people with disabilities. GeoJournal of Tourism and Geosites, 37, 844-850 (2021)
24. Kamyabi, M., Alipour, H.: An investigation of the challenges faced by the disabled population and the implications for accessible tourism: Evidence from a Mediterranean destination. Sustainability, 14, 4702 (2022)
25. Puspitasari Rochman, G., Syaodih, E., Risang Aji, R.: How accessible is tourism for people with disabilities? KnE Life Sciences, 211-218 (2022)
26. Ali, F., Cain, L., Legendre, T.S., Wu, L.: The intersection of technology, accessible tourism and tourists with intellectual disabilities: Proposing a novel conceptual framework. Journal of Hospitality and Tourism Research (2022)
27. Lam, K.L., Chan, C.S., Peters, M.: Understanding technological contributions to accessible tourism from the perspective of destination design for visually impaired visitors in Hong Kong. Journal of Destination Marketing & Management, 17, 100434 (2020)
28. Mastrogiuseppe, M., Span, S., Bortolotti, E.: Improving accessibility to cultural heritage for people with intellectual disabilities: A tool for observing the obstacles and facilitators for the access to knowledge. Alter, 15, 113-123 (2021)
29. Fryer, L.: Accessing access: The importance of pre-visit information to the attendance of people with sight loss at live audio described events. Universal Access in the Information Society, 20, 717-728 (2021)
30. Choibamroong, T., Angkananon, K.: Accessibility barriers in the second-tier tourism cities of Thailand for people with visual impairments. GeoJournal of Tourism and Geosites, 45, 1683-1692 (2022)
31. Dincer, F.I., Ozcit, H., Cifci, I., Sezer, B., Kahraman, O.C., Sahinoglu, S.: Accessible museums for visually impaired: A case study from Istanbul. Journal of Tourism, 5, 113-126 (2019)
32. Kusufa, R.A.B., Nurfarida, I.N., Wilujeng, S., Firdaus, R.M.: Tourism experience in tourism villages: Persons with disabilities (PwD) perception. European Journal of Development Studies, 2, 24-28 (2022)
33. Condie, G.A.: Exploring the personal and social aspects of individuals with physical disabilities' leisure experiences: Experiencing leisure but as an individual person. Leisure Studies, 40, 363-377 (2021)
34. Tchetchik, A., Eichhorn, V., Biran, A.: Not on my vacation: Service encounters between able-bodied and disabled consumers–the case of high-contact service. Journal of Policy Research in Tourism, Leisure and Events, 10, 204-220 (2018)
35. Lee, B., An, S., Suh, J.: How do tourists with disabilities respond to service failure? An application of affective events theory. Tourism Management Perspectives, 38 (2021)

36. Lehto, X., Luo, W., Miao, L., Ghiselli, R.F.: Shared tourism experience of individuals with disabilities and their caregivers. Journal of Destination Marketing & Management, 8, 185-193 (2018)
37. Freund, D., Cerdan Chiscano, M., Hernandez-Maskivker, G., Guix, M., Iñesta, A., Castelló, M.: Enhancing the hospitality customer experience of families with children on the autism spectrum disorder. International Journal of Tourism Research, 21, 606-614 (2019)
38. Qiao, G., Cao, Y., Zhang, J.: Accessible tourism – Understanding blind and vision-impaired tourists' behaviour towards inclusion. Tourism Review, 78, 531-560 (2022)
39. Olya, H.G.T., Altinay Gazi, Z., Altinay Aksal, F., Altinay, M.: Behavioral intentions of disabled tourists for the use of peer-to-peer accommodations: An application of fsQCA. International Journal of Contemporary Hospitality Management, 30, 436-454 (2018)
40. Zhang, Y., Cole, S., Ricci, P., Gao, J.: Context-based leisure travel facilitation among people with mobility challenges: A self-determination theory approach. Journal of Travel Research, 58, 42-62 (2019)
41. Zhang, Y., Gao, J., Cole, S.T., Ricci, P.: Beyond accessibility: Empowering mobility-impaired customers with motivation differentiation. International Journal of Contemporary Hospitality Management, 31, 3503-3525 (2019)
42. Reindrawati, D.Y., Noviyanti, U.D.E., Young, T.: Tourism experiences of people with disabilities: Voices from Indonesia. Sustainability, 14 (2022)
43. Boyd, K.A., Goodwin, D.L.: It's hard when people try and get their kids away from cole: A family's experiences of (in)dignity in leisure settings. Adapted Physical Activity Quarterly, 36, 223-241 (2019)
44. Steinhardt, F., Ullenhag, A., Jahnsen, R., Dolva, A.S.: Perceived facilitators and barriers for participation in leisure activities in children with disabilities: Perspectives of children, parents and professionals. Scandinavian Journal of Occupational Therapy, 28, 121-135 (2021)
45. Labbé, D., Miller, W.C., Ng, R.: Participating more, participating better: Health benefits of adaptive leisure for people with disabilities. Disability and Health Journal, 12, 287-295 (2019)
46. Awan, M.I., Shamim, A., Saleem, M.S., Gill, S.S.: Service inclusion for tourists with disabilities: Scale development and validation. Journal of Services Marketing, 36, 977-990 (2022)
47. Tomej, K., Duedahl, E.: Engendering collaborative accessibility through tourism: From barriers to bridges. Annals of Tourism Research, 99, 103528 (2023)
48. Tecau, A.S., Bratucu, G., Tescaşiu, B., Chiţu, I.B., Constantin, C.P., Foris, D.: Responsible tourism-integrating families with disabled children in tourist destinations. Sustainability, 11, 1-18 (2019)
49. Lim, J.E.: Understanding the discrimination experienced by customers with disabilities in the tourism and hospitality industry: The case of Seoul in South Korea. Sustainability, 12, 7328 (2020)
50. Huang, L., Newman, L.: Enhancing the smart tourism experience for people with visual impairments by gamified application approach through needs analysis in Hong Kong. Sustainability, 12, 6213 (2020)
51. Żbikowski, J., Siedlecka, A., Kuźmicki, M.: Determinants of tourist activity of people with disabilities living in rural areas. Economic and Regional Studies, 12, 401-417 (2019)
52. Załuska, U., Kwiatkowska-Ciotucha, D., Grześkowiak, A.: Travelling from perspective of persons with disability: Results of an international survey. International Journal of Environmental Research and Public Health, 19, 10575 (2022)

53. Dempsey, R., Healy, O., Lundy, E., Banks, J., Lawler, M.: Air travel experiences of autistic children/young people. Annals of Tourism Research - Empirical Insights, 2, 100026 (2021)
54. Park, J., Chowdhury, S.: Investigating the barriers in a typical journey by public transport users with disabilities. Journal of Transport and Health, 10, 361-368 (2018)
55. Aguilar-Carrasco, M.J., Gielen, E., Vallés-Planells, M., Galiana, F., Riutort-Mayol, G.: Assessment of barriers for people with disability to enjoy national parks. Frontiers in Psychology, 13, 1058647 (2022)
56. Devile, E., Kastenholz, E.: Accessible tourism experiences: The voice of people with visual disabilities. Journal of Policy Research in Tourism, Leisure and Events, 10, 265-285 (2018)
57. Özcan, E., Güçhan Topcu, Z., Arasli, H.: Determinants of travel participation and experiences of wheelchair users traveling to the Bodrum region: A qualitative study. International Journal of Environmental Research and Public Health, 18 (2021)
58. Sarmah, B., Kamboj, S., Chatterjee, R.: Linking the intrinsic and environmental constraints with PwD tourists' behavioral intentions toward a travel destination: Mediating role of learned helplessness. Journal of Tourism Futures, 1-15 (2022)
59. Cockburn-Wootten, C., McIntosh, A.: Improving the accessibility of the tourism industry in New Zealand. Sustainability, 12, 1-17 (2020)
60. Hunter-Jones, P., Sudbury-Riley, L., Chan, J., Al-Abdin, A.: Barriers to participation in tourism linked respite care. Annals of Tourism Research, 98, 103508 (2023)
61. Alves, J.P., Eusébio, C., Carneiro, M.J., Teixeira, L., Mesquita, S.: Living in an untouchable world: Barriers to recreation and tourism for Portuguese blind people during the COVID-19 pandemic. Journal of Outdoor Recreation and Tourism, 42, 100637 (2023)
62. Epuran, G., Tecău, A.S., Constantin, C.P., Tescaşiu, B., Chițu, I.B.: Opportunities of using new technologies (VR/AR) in order to facilitate the access of persons with disabilities to tourist products. Bulletin of Transylvania University of Braşov - Series V: Economic Sciences, 13(62), 55-64 (2020)

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

