UNIVERSITY OF LIBRARY STUDIES
AND INFORMATION TECHNOLOGIES

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MANAGEMENT OF INFORMATION PROCESSES IN ANALYSIS OF THE ATTACHMENT DISORDER IN THE CONTEXT OF 'SOCIAL-EMOTIONAL DISABILITY'

DISSERTATION THESIS

Sofia
2025

UNIVERSITY OF LIBRARY STUDIES
AND INFORMATION TECHNOLOGIES
FACULTY OF INFORMATION SCIENCES
NATIONAL AND INTERNATIONAL SECURITY DEPARTMENT

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DISSERTATION THESIS

for acquiring Educational and Scientific Degree
"DOCTOR"
in Professional field 3.5 "Public Communications and Information Sciences", in Doctoral Program: "Organization and Management of Information Processes"

Scientific advisor:
Prof. D.Sc. Gosho Kirilov Petkov

Sofia
2025

Abstract

Johnson, J.: Management of Information Processes in Analysis of the Attachment Disorder in the Context Of ‘Social-Emotional Disability’. Scientific advisor: Prof. D.Sc. Gosho Kirilov Petkov. National and International Security Department to the Faculty of Information Sciences, Doctoral Program: Organization and Management of Information Processes". ULSIT, Sofia, 2025, 228 pages; 183 information sources; 4 figures; 9 tables.

This dissertation aims to develop a practical model for organizing and managing information processes in the analysis of attachment disorders within the context of social and emotional disabilities. In light of the growing prevalence of mental health issues among children, adolescents, and young adults, the study explores which indicators are crucial for systematic information management in the diagnosis, care, and social integration of those affected.

The work is grounded in an interdisciplinary theoretical framework, integrating findings from developmental psychology, attachment theory and neuroscience. The focus of this study is the retrospective individual case analysis of a young adult with a social-emotional handicap who was accompanied for twelve years. The employment of a mixed-methods design enabled integrating qualitative data (interviews, document analysis, genograms) and quantitative surveys (standardized questionnaires) to facilitate a comprehensive perspective.

The results indicate that experiences of deprivation in early childhood have long-term effects on social and emotional development and require a considerable amount of individual support. Based on this, a model was developed to enable professionals to record, categorize and share relevant information in a structured way. It provides practical support for planning personalized care strategies, enhances interdisciplinary collaboration, and promotes the professional management of social-emotional disabilities.

Keywords: analysis model, attachment theory, early childhood deprivation, information processing, psychosocial development, social-emotional handicap

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INTRODUCTION

In the current educational landscape, there is a growing emphasis on self-determination and personal responsibility, regardless of age or impairment. However, this trend is at odds with the findings of attachment theory and neuroscience. According to attachment research as presented by Bowlby (1958) and Ainsworth et al. (2015), stable, responsive relationships are crucial for children's emotional and cognitive development. Furthermore, recent neuroscientific studies, as demonstrated by Rass (2014), Schore (2001) and Strüber (2016), reveal that brain development during childhood is greatly impacted by interactions with caregivers. The discrepancy between the pedagogical focus on individual autonomy and these scientific insights into the importance of attachment and brain development for children calls into question the appropriateness and effectiveness of current pedagogical practices.

The need to investigate this discrepancy is based, partly, on worrying figures in a press release issued by the Federal Statistical Office (Statistisches Bundesamt) on 4 May 2021, which documents an alarming prevalence rate of children and young people at risk of mental disability. According to this report, the number of integration aids for children and young people with mental health conditions increased by 156% between 2009 and 2019. Almost half of those affected were aged 9-13 in 2019 (Statistisches Bundesamt, 2021). There has also been an increase in hospital stays due to mental illness among children and adolescents aged 10 to 17. These rose from 13% of all stays in 2011 to 19% in 2021. This makes mental distress the second most common reason for hospitalisation in this age group (Statistisches Bundesamt, 2023).

According to Johnson et al. (2022), mental health problems that are not recognized and adequately treated at a young age can lead to complex social, emotional and societal consequences in adulthood. For example, those affected may have difficulties integrating independently into society. They often struggle with completing their education, obtaining employment and organizing their daily lives (Johnson et al., 2022, p. 7). These problems can lead to deviant behavior and result in incarceration or a disability classification (Johnson et al., 2022, p. 7). The inadequate provision of adequate support measures for those affected harbors the risk of serious mental health

problems becoming entrenched, manifesting themselves in the form of persistent behavioral problems that could potentially persist into adulthood or even intensify. This development signals an increasing threat to existing social structures and prevailing norms, particularly in relation to professional life and violent crime. Geiser (2022) reports that the number of violent crimes committed by young people declined until 2014 but notes that this trend has been reversed in the past years. Recently, the number of violent crimes has risen again, a phenomenon that has been observed in various countries such as the Netherlands, Germany and the UK. Similarly, Kirsch et al. (2023), referring to the police crime statistics for 2022, point to a significant increase in suspects under the age of 18. Regarding professional life, the research findings of Walther et al. (2023) indicate that in the period from 2019 to May 2023, in particular the younger age cohorts (18-29 and 30-44 years) were affected by a negative trend in the mental health of adults, leading to a significant number of absences at work. The mental health report of the German Employees Health Insurance Fund[1] (DAK Gesundheit 2023) supports this assumption and shows that absenteeism due to mental illness has reached a new high. The analysis of sick notes from 2.4 million DAK-insured employees shows that the number of days lost due to these illnesses has risen by 48% compared to the last ten years. The sharp increase in 2022 among young employees is particularly striking. This trend, in particular the increasing number of young adults affected, is considered worrying (DAK-Gesundheit, 2023).

The observed increase in mental impairments and associated sickness absence in the workplace as well as acts of violence among young people underlines the urgent need to develop modern educational measures for children and young people. The fact that young people and professionals are increasingly affected by mental distress and are responsible for rising levels of violence or other criminal offending suggests that the foundations for these conditions may be laid earlier in life. At the same time, adequate and up-to-date support measures are apparently not available to a sufficient extent, which could explain the observed increase. Early preventive measures could

1 DAK-Psychreport

reduce the risk of developing mental disorders and impairments and thus significantly improve personal resilience in later stages of life. This is not only crucial for individual personal development but also has far-reaching positive effects on the society as a whole, including a reduction in absenteeism and violent crime and the associated economic burdens. For this reason, the promotion of preventative and educational strategies and programs that focus on the positive mental development of children, adolescents and young adults is of central importance.

Based on the findings of the Statistisches Bundesamt of 2021, which highlight increasing mental distress among adolescents and young adults, this research explores the role of adequate care options in the development of mental or social-emotional disabilities through an individual case presentation. The hypothesis suggests that inadequate support and care in early childhood contribute significantly to the development of mental disabilities resulting from socialization deprivation and that these social-emotional, mental disabilities tend to persist over time. As a result, many attachment disorders - including the social-emotional handicap as postulated by the author of this work - would not be classified as pathological and curable. Instead, they should align with the German concept of disability as outlined in §2 1 SGB IX and require long-term care.

In light of this, the present study addresses on the central research question of what measures are necessary to enable individuals affected by a social-emotional handicap to participate in social life, while taking into account their individual capabilities. It further examines how these challenges can be effectively managed to help those affected live a less stressful and more satisfying lives, thereby reducing work absences and aggressive outbursts that often lead to violent acts.

Attachment theory offers a potential foundation for such approaches. Grossmann and Grossmann (2015) emphasize the long-term consistency of the mother-child bond. Ulmer-Yaniv et al. (2021) further substantiate this assumption with a two-decade study of mothers and children. Their findings (Ulmer-Yaniv et al., 2021, p. 9) reveal a stable connection between certain brain regions, independent of age, suggesting that attachment continuously develops over time. Their research strengthens the premises

of attachment theory, particularly its notion of the long-term stability in attachment relationships.

Understanding how attachment relationships evolve and endure provides insights for designing targeted prevention and care strategies for mental impairments. Identifying the causes of attachment disorders and mental disabilities - often traced back to early childhood attachment problems - becomes crucial. Sound causal research, therefore, not only supports the creation of effective educational interventions and preventive measures to enhance the mental health and well-being of children and adolescents but also has significant implications for adulthood. Early-established strategies have the potential to shape psychological development positively, fostering self-confidence and stability well into adult life.

Current state of research

The rising prevalence emotional distress among adolescents and young adults (Statistisches Bundesamt, 2021) underscores the urgent need of for effective care and intervention strategies for individuals with social-emotional disabilities. The social-emotional handicap, which arises as a consequence of early emotional distress and is characterized by deficits in bonding ability and emotional regulation (Johnson, 2014; Klaes & Johnson, 2016a, pp. 99-101), serves a central research focus of this study.

Current research in attachment theory and neuroscience emphasizes the long-term impact of early attachment experiences (Bowlby, 1969; Grossmann & Grossmann, 2015) and highlights the stable neural mechanisms that support them (Schore, 2001; Rass, 2016). Despite these findings, there remains a notable gap in systematically integrating this knowledge into university and vocational training programs. This lack of integration significantly hinders the development and practical implementation of effective care approaches. More specifically, there is a shortage of pedagogical concepts designed to structure and manage the essential information processes required for analyzing attachment disorders within the context of social-emotional disabilities. This deficiency further restricts the ability to provide adequate support for affected individuals. Additionally, communication between theory,

practice, and relevant professionals remains insufficient. According to Brunner et al. (2022, p. 26), such communication is crucial to ensuring the consistent translation of scientific insights into practical applications.

This thesis aims to address this gap by exploring how the effective management of information processes can facilitate the development and implementation of improved strategies for analyzing social-emotional handicaps and the corresponding care approaches. The choice of this research topic stems not only from its social relevance but also from the author's personal experience. The author has spent many years caring for Manuel, an individual with a social-emotional handicap, which has deeply informed her understanding of the challenges involved.

The focus of this study is on the social-emotional handicap, a specific subtype of mental disability that originates from inadequate attachment opportunities during early childhood (Johnson, 2014; Klaes & Johnson, 2016a, pp. 90-92). This form of handicap is marked by persistent deficits in emotional and social development, necessitating long-term, customized care strategies (Johnson, 2014).

Research object

The significance of this **research object** lies in the specific challenge of organizing and managing the necessary information processes. According to Choo et al. (2006, p. 492), these processes encompass not only the structured collection and storage of relevant data but also its systematic analysis and dissemination to the involved stakeholders (Choo, 1996, p. 338). Achieving this requires a high degree of precision and coordination, particularly when sensitive personal data - crucial for the development of care and intervention strategies - is utilized in the process (*Datenschutz in Der Forschung*, 2024).

In this context, a framework model for information management is being developed, which integrates data modeling and analysis. This model facilitates the identification, collection, and practical application of relevant data, allowing it to be systematically organized and effectively implemented.

Establishing such a foundation not only enhances the diagnosis and care of the affected individual but also promotes the development of a shared language among the interdisciplinary professionals involved. According to Brunner et al. (2022, pp. 24-25), achieving this common understanding is critical to the success of these processes.

Research subject

The **research subject** comprises individuals affected by a social-emotional handicap. This group is represented through an exemplary individual case study, which was analyzed retrospectively using a detailed longitudinal approach over a period of 12 years. The empirical analysis is based on documentation, certificates, and specialist medical records, as well as biographical data and descriptive statistics derived from cross-sectional data collected through questionnaires.

Research objective

The **objective of this research** is to develop a model for managing information processes in the analysis of attachment disorders within the context of social-emotional disabilities. This model aims to identify and structure specific data for analysis and, based on this structured information, propose effective planning for intervention measures. The ultimate goal is to introduce new approaches for the care and social integration of individuals with social-emotional disabilities.

To fulfill this objective, the following **tasks** have been outlined:

1. Reviewing existing research on the management of information processes in the context of attachment disorders associated with social-emotional handicaps (Chapter 1), including their etiology and impact (Chapter 2).
2. Selecting and justifying appropriate methodological approaches for collecting and analyzing both qualitative and quantitative data (Chapter 3).
3. Collecting and analyzing qualitative and quantitative data from a retrospective longitudinal study about Manuel’s development (Chapter 4).
4. Developing a systematic model for the identification and organization of relevant information, alongside deriving practice-oriented recommendations for intervention (Chapter 4).

5. Developing appropriate support measures based on the previously established analysis model (Chapter 4).

Research hypothesis

This study explores the question of which procedures are necessary for effective information management to enable individuals with social-emotional handicaps to participate in social life according to their personal abilities. To address this, a framework model for information management is developed with three key objectives:

H1[2]: Facilitate the systematic analysis of relevant information,

H2[3]: Define individual objectives based on the personal resources of the affected person, and

H3[4]: Develop an appropriate care framework.

Implementing this model aims to achieve more sustainable social integration for those affected. Additionally, the study hypothesizes that the extent and duration of early childhood deprivation have a significant impact on both emotional development (H2a) and long-term support needs (H2b).

The study follows a mixed-methods approach that combines qualitative methods of individual case analysis (guided interviews based on Helfferich, 2011; content analysis according to Kuckartz, 2020) with quantitative procedures. This combination enables a holistic view of the research subject. The validation of the findings is achieved though data triangulation, which involves the use of the Bochum Attachment Questionnaire, the Emotion-Specific Self-Assessment Questionnaire, and the Questionnaire on Behavior in Social Situations.

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2 What information is relevant for the process of analyzing the social-emotional handicap of the persons concerned as a basis for action strategies?

3 Which target definitions are based on the personal resources of the individuals?

4 Which care framework is relevant for this opportunity for participation based on the objectives identified?

The research is considered successful if the empirically developed model for organizing and utilizing information:

- Enhances the diagnosis and care of social-emotional handicaps,
- Establishes a common language among professionals to design targeted and individualized support measures.

Furthermore, relevant quality criteria are incorporated to ensure both high scientific standards and practical applicability of the findings.

The limits of research

The single-case perspective of this study limits its transferability to a broader population (Midgley, 2006, pp. 137-138). Subjective data sources and the retrospective approach introduce potential biases (Appinio Research, 2025), and the absence of a comparison group restricts broader generalizations (Renner et al., 2012, pp. 89-101). Additionally, the written survey conducted by Schiek (2022) and the subsequent shift towards qualitative interpretation during the advanced research stages further reduce the study's informative value. Despite these limitations, the study provides valuable insights into individual developmental processes and highlights the significance of various influencing factors.

Organization and management of information processes in the context of the research topic

This research project introduces an analysis and management model for information processes, specifically designed for assessing and supporting individuals with attachment disorders in the context of social-emotional handicaps. The model establishes a structured framework to systematically record and analyze relevant information and transform it into practical intervention and care strategies.

The model serves as a practical guide for social professionals, enabling them to develop standardized procedures for diagnosis and care. It clearly outlines how to collect, analyze, and organize information, facilitating the creation of targeted care plans that address the specific needs of those affected.

The model demonstrates versatility across several application areas:

1. Practical Use: Social professionals can apply the model to enhance the quality of care and improve the efficiency of intervention strategies.
2. Transferability to Similar Cases: Its flexible structure allows for adaptation in comparable contexts that require multidisciplinary collaboration.
3. Standardization and Communication: The model fosters a common understanding across different disciplines, supporting effective interdisciplinary cooperation. Limitations regarding this aspect are discussed in Chapter 4.

The model also holds potential for integration into education and training programs, serving as a practical tool to teach professionals how to manage and organize complex information processes effectively. Its development fulfills a key objective of the doctoral program by transforming theoretical knowledge into a practice-oriented tool. It illustrates how well-organized information processes can directly improve the quality of care.

In the long term, this model aims to professionalize the care of individuals with social-emotional disabilities and strengthen cooperation among various disciplines. It acts as a bridge between scientific theory and practical application, establishing a foundation for the sustainable integration of those affected into society.

Approval and dissemination of results

The findings of this study will be shared through conference papers, presentations at specialized conferences, and academic publications. Additionally, selected institutions will test the model to evaluate its practicability and effectiveness in real-world settings.

1. CHAPTER I. MANAGEMENT OF INFORMATION PROCESSES IN THE ANALYSIS OF ATTACHMENT DISORDERS

Introduction

Bullinger et al. (2003, pp. 362-363) emphasize that efficient information process management plays a crucial role in enabling organizations to fully leverage knowledge and information as strategic resources. The term information process describes the systematic collection, generation, transfer, and utilization of data, which is shared through effective communication channels. These processes rely on suitable technologies for data processing, information storage, and strategies to maintain information security (Choo, 1996, pp. 329-330; Choo, 2013, pp. 776-777).

Information process management spans a wide range of research and application areas, ensuring that relevant data reaches the right people at the right time and in the appropriate quality (Heinrich et al., 2014, pp. 52, 282). This is especially critical in interdisciplinary research fields, where collaboration across multiple disciplines requires the handling of complex data analyses (Brunner et al., 2022, p. 24).

Effective information management is particularly significant for scientific studies that explore empirically uncharted phenomena. These studies require precise and systematic information processing to guarantee both validity and meaningful implications. In the field of psychological research, the complexity and sensitivity of the data, along with the need for interdisciplinary cooperation, demand a high level of precision and care (Wintzer, 2015, p. 124). Well-structured information processing ensures consistent data collection, valid analysis, and efficient communication of results. This structured approach serves as the foundation for evidence-based implications and practical interventions (Netzwerk Evidenzbasierte Medizin e.V., 2025).

This study applies these concepts specifically to the analysis of attachment disorders within the context of social-emotional handicaps. The following sections introduce the general principles of information management and then discuss their specific relevance to this research area. The goal is to provide a comprehensive

understanding of the importance and implementation of effective information management in this specialized context.

1.1 Communication relations and relationships

An essential aspect of effective information management lies in the structured control of both internal and external communication processes. Buchholz and Knorre (2023, pp. 11-14) highlight the importance of well-designed strategies to facilitate efficient information flows, ensuring smooth communication within the organization as well as in external interactions.

Internal communication

Internal communication encompasses the exchange of information among departments and employees within the organization. A well-structured communication system guarantees that all stakeholders have access to the information they need (Buchholz & Knorre, 2023, pp. 11-12). Achieving this requires the establishment of transparent and open communication channels designed to facilitate the targeted, rapid, and efficient transfer of relevant information to the appropriate individuals. Tools such as regular meetings, email communication, intranets, and collaboration platforms play a critical role in supporting these processes (Buchholz & Knorre, 2023, pp. 12-14).

Additionally, a structured information architecture that clearly defines hierarchies and responsibilities is crucial. This structure minimizes misunderstandings and information loss by ensuring that relevant information reaches the right recipients systematically (Buchholz & Knorre, 2023, p. 13). Establishing such communication structures promotes a multidirectional communication culture, fostering transparency and continuous exchange throughout the organization. This architecture not only strengthens vertical communication between management and employees but also enhances horizontal networking across departments and teams. As a result, information circulates coherently and efficiently, supporting collaborative efforts and informed decision-making (Bullinger et al., 2003, p. 49).

Internal communication patterns and barriers

Effective internal communication relies on a solid understanding of the underlying structures, channels, and media. However, it also benefits from a systematic analysis of existing communication patterns. Huck-Sandhu (2014, pp. 655-656) identifies five distinct communication modes that serve as analytical tools for understanding internal communication dynamics. Each mode has unique functions and influences communication outcomes differently:

1. Informative mode: Focuses on the objective and neutral dissemination of information. Common channels include emails, intranet messages, reports, and circulars, which are designed to ensure transparency in documentation. However, this mode often remains one-dimensional and impersonal, making it less effective in dynamic or sensitive situations ("That's how it is…").
2. Argumentative mode: Emphasizes persuasion through logic and reasoning. Presentations, guidelines, and decision templates are typical formats used to support decision-making or reorientation during change processes ("It is so because…").
3. Evaluative mode: Involves assessments, evaluations, prioritizations, and recommendations of events. This mode interprets and evaluates occurrences, supporting management activities and reinforcing organizational values. When assessments are fair, this mode can significantly boost employee motivation ("It is good/bad that it is like this…").
4. Narrative mode: Uses storytelling, metaphors, and symbolic communication to create meaning and convey culture, identity, and change. This mode is particularly effective in anchoring information in the collective memory and emotionalizing key messages ("First this happened, then that…").
5. Discursive mode: Focuses on interactive communication where different actors exchange ideas and negotiate meanings within a structured framework. It is ideal for reflecting company positions, encouraging open discourse, and negotiating different perspectives ("A argues with B about whether it is really like this…").

The differentiation between these communication modes provides a valuable framework for analyzing how information flows within an organization. It clarifies the dominant types of interaction, the objectives pursued, and their influence on the communication climate and employee engagement.

Beyond functional modes, structural communication patterns also play a key role in shaping information flow, employee participation, and power structures within an organization. Deutinger (2017, pp. 82-85) outlines three primary directions of communication:

1. Top-down communication: In this structure, information flows hierarchically from management to lower departments. This centralized approach supports efficient dissemination of strategies, decisions, and instructions. However, its one-sided nature limits feedback opportunities, which may result in misunderstandings or resentment among employees.
2. Bottom-up communication: This pattern describes the upward flow of information, where employees provide feedback, escalate issues, or share insights with management. This structure promotes organizational learning, as frontline experiences inform strategic decisions. However, in authoritarian organizational cultures, this flow is often restricted or even systematically blocked.
3. Horizontal communication: Occurring among departments or teams at the same hierarchical level, this pattern supports exchange, coordination, and collaboration. It is especially valuable in matrix organizations and agile teams, where synergy and flexibility are crucial. However, it can lead to information loss or conflicts if roles and responsibilities are unclear or if interface coordination is lacking.

For internal communication to be truly effective, a holistic architecture must integrate all three patterns - top-down, bottom-up, and horizontal. Balancing these communication flows fosters a dialogue-oriented, adaptive, and participative culture. This approach not only ensures information is shared but also enables critical reflection and continuous development, making communication a dynamic and evolving process.

External communication

External communication encompasses the exchange of information with various stakeholders, including customers, investors, authorities, media, partners, and the public. This process is designed to convey clear and consistent messages that reflect the organization's image, practices, and goals (Buchholz & Knorre, 2023, p. 18). Establishing transparent and reliable communication helps build and maintain trust, creating a continuous flow of information that supports efficient feedback processing and strengthens the organization's public image (Buchholz & Knorre, 2023, pp. 18-19).

Buchholz and Knorre (2023, pp. 15-16) emphasize that organizations should not only observe their environment but also actively shape it through communication. This perspective transforms external communication from a mere support function into a strategic resource. By intentionally engaging with stakeholders, companies can build and maintain relationships that extend beyond short-term information exchange. Instead, these interactions focus on creating long-term meaning and trust, solidifying the organization's reputation and influence.

In dynamic and sometimes controversial environments, effective external communication becomes crucial for organizational survival. Maintaining an active communicative presence allows companies to identify emerging discourses early, manage them proactively, and extract insights that drive internal development. By engaging with external narratives, organizations can secure sustainable competitive advantages (Buchholz & Knorre, 2023, p. 15). This strategic approach turns external communication into a recursive process - one that not only informs stakeholders but also influences the organization's capacity to adapt and innovate.

Dovetailing internal and external communication

Buchholz and Knorre (2023, pp. 15-19) point out that the previously common separation between external and internal communication is now being called into question. Instead, they present a communication-centric approach that takes into account the reciprocal relationship between the two areas and emphasizes that they

influence each other. On the one hand, internal communication forms the basis for a credible and representative public image, which is based on external communication; on the other hand, feedback from the public and the environment flows back and provides important impetus for internal processes and the associated communication. The reciprocal influence creates an integrative communication system that contributes to the strategic orientation and further development of the entire organization.

Buchholz and Knorre (2023, pp. 15-19) argue that the traditional separation between internal and external communication is increasingly outdated. Instead, they propose a communication-centric approach that emphasizes the reciprocal relationship between these two domains. According to their perspective, internal and external communication continuously influence each other: Internal communication lays the foundation for a credible and representative public image, which is then projected through external communication. Simultaneously, feedback from the external environment flows back into the organization, providing critical insights that drive internal communication and influence organizational processes. This reciprocal influence fosters an integrative communication system, aligning strategic orientation with organizational development.

According to HR WORKS (2024), effective communication is grounded in clear principles that apply to all stakeholders. Examples of such rules are

- Clear and consistent communication
- Focus on key issues
- Awareness and elimination of language barriers
- Open conflict resolution
- Open and transparent access to information
- Communication from the employee’s perspective
- Regular meetings with all stakeholders
- Openness to feedback
- Mandatory training and professional development for all stakeholders

While traditional frameworks such as the one above from HR WORKS (2024) prioritize comprehensibility, transparency, regularity and conflict resolution, Buchholz and Knorre (2019) significantly expand on traditional concepts by introducing a communication-centered management approach. They argue that communication should not merely transmit information in a clear, simple and comprehensive way but also unlock meaning and create understanding - a concept they refer to as "sensemaking" (Buchholz & Knorre, 2023, p. 16). According to their view, effective communication creates orientation and enables collective action (Buchholz & Knorre, 2023, pp. 12-17). Their approach highlights that the relevance of information emerges not only from its content but also from its alignment with existing interpretive frameworks within the organization. They further suggest that information should be not just accessible but should actively enable participation through open discourse (Buchholz & Knorre, 2023, p. 16). This model envisions communication as a multidirectional process that operates:

- vertically between management and employees,
- horizontally across teams and departments, and
- externally with the broader environment (Buchholz & Knorre, 2023, pp. 13-14).

Buchholz and Knorre (2023, pp. 17-18) further emphasize that emerging conflicts in communication should not be seen merely as disruptions but as valuable triggers for learning and adaptation. They argue that a strong communication culture not only allows for reflection and contradiction but also maintains stability in the face of change. This balancing act - managing both adaptability and reliability - is presented as a core requirement of modern organizational communication.

To cultivate genuine dialogue, they stress the importance of considering the employee perspective (Buchholz & Knorre, 2023, p. 18). Feedback is not viewed as disruptive but as an integral part of continuous organizational self-reflection. To support this, the authors advocate for ongoing training and professional development that not only enhances technical expertise but also strengthens communicative skills and reflexive capabilities (Buchholz & Knorre, 2023, pp. 17-19).

Application of information principles

The strong interconnection between internal and external communication - emphasized in Buchholz and Knorre's (2023) communication-centered management approach - illustrates that communication in organizations should not be reduced to the mere exchange of information. Instead, it should be understood as a meaning-driven process that conveys orientation, identity, and intent. To ensure that such communication remains credible, sustainable, and efficient, organizations must adhere to clearly defined principles for handling information.

Transparency plays a central role in effective governance and stakeholder trust. The G20/OECD Principles of Corporate Governance highlight that a robust system of disclosure is essential for organizational control and public accountability (OECD, 2015, p. 45). Transparent practices ensure that crucial information - such as financial reports and governance structures - is openly accessible. This openness builds trust and enhances the quality of stakeholder engagement (OECD, 2015, p. 45).

Heinrich et al. (2014, p. 250) argue that IT systems must be designed to be understandable even to third-party experts without requiring specialized knowledge. In the same vein, Bullinger et al. (2003, p. 366) stress that transparency not only facilitates knowledge sharing but also enhances the quality of organizational decision-making over time.

From a legal perspective, the Federal Commissioner for Data Protection and Freedom of Information[5] (BfDI) frames transparency as a fundamental requirement of the General Data Protection Regulation[6] (GDPR). For example, organizations must inform data subjects comprehensively and without delay about how their data is being processed (BfDI, 2022, pp. 8-9).

5 Bundesbeauftragte für den Datenschutz und die Informationsfreiheit (BfDI)

6 Datenschutz-Grundverordnung

Confidentiality ensures that information remains protected from misuse. Heinrich et al. (2014, p. 284) define it as the protection of sensitive data from unauthorized access, safeguarding data security. The BfDI also emphasizes that personal data must be processed and stored in a secure and confidential manner, with access strictly limited to authorized individuals (BfDI, 2022, pp. 84-85). Children in particular are protected under the GDPR, as they "may be less aware of the relevant risks, consequences, safeguards, and their rights regarding the processing of personal data"[7] (BfDI, 2022, p. 84).

The term relevance refers to the selection of information that is essential for a given task or decision and serves as the foundation for sound decision-making within governance processes. Heinrich et al. (2014, p. 61) explain that a well-balanced supply of information helps minimize discrepancies between what is available, what is needed, and what is actually required. Bullinger et al. (2003, p. 744) define relevant information as that which aligns with the intended purpose of a model and takes cost-benefit considerations into account - thus helping to prevent information overload and promote efficient decision-making. Barreto (2023) emphasizes that only information that is timely, accurate, and materially significant should be considered in governance decisions.

Crisis prevention and communication skills

Structured information management addresses not only the routine coordination of internal and external communication but also plays a critical role in crisis prevention (Müller & Riedel, 2019, pp. 189-191). Crises rarely erupt suddenly or without warning; rather, they tend to develop gradually. In both cases, organizations must rely on a transparent, open, structured, and strategic communication culture capable of recognizing warning signals early on. This capacity ensures they remain operational during a crisis and respond promptly to contain it (Meißner, 2019a, pp. 45-49).

7 Source text: „sich der betreffenden Risiken, Folgen und Garantien und ihrer Rechte bei der Verarbeitung personenbezogener Daten möglicherweise weniger bewusst sind"

Following a crisis, it is vital to conduct a thorough analysis of the situation to derive preventive measures (Krcmar, 2014, p. 533). Possible causes of crises include internal challenges such as rising employee turnover, persistent miscommunication, or delays in decision-making. External triggers may involve negative public perception or unforeseen regulatory or legal developments (Bullinger et al., 2003, p. 126).

Organizations - especially in the social sector, where they work with vulnerable groups and sensitive data - must stay alert to shifts in internal and external sentiment. Practical tools for this include regular feedback loops, social media monitoring, and structured complaint management systems that assess the general mood (Bundesministerium des Innern, 2014, p. 10). According to the German Federal Ministry of the Interior (BMI), a communication culture that takes early warnings seriously, addresses them transparently, and genuinely listens to concerns is essential for timely preventive action (Bundesministerium des Innern, 2014, pp. 14-15).

Sound crisis management requires dynamic control mechanisms that differ fundamentally from standard communication routines (Koulalis & Schäfer, 2019, pp. 55-61). Organizations should establish clear crisis communication strategies, including:

- defined roles and responsibilities,
- structured escalation levels, and
- action-oriented guidelines.

These measures ensure consistent, audience-specific messaging that helps mitigate uncertainty and stabilize the situation (Fink, 2019, p. 174; Meißner, 2019b, pp. 55-157, 166-168).

While acute crisis responses are essential, Washausen and Meißner (2019, pp. 12-15) emphasize the importance of developing a long-term, resilient communication culture. Central to this is a constructive error culture - one in which problems and challenges are recognized early as potential warning signals. This kind of culture significantly reduces the risk of escalation. Such an environment must empower

employees to voice concerns and openly communicate uncertainties without fear of negative consequences (Washausen & Meißner, 2019, p. 14).

Regular training sessions on crisis communication and managing critical situations help foster long-term stability - both in everyday operations and during times of disruption. These trainings enhance action competence and promote reflective communication practices. Leaders, in particular, should be equipped to moderate crises with confidence and reduce uncertainty within their teams (Bullinger et al., 2003, p. 127). Brunner et al. (2022, p. 27) stress that communication competence is a vital prerequisite for effective interdisciplinary collaboration. It enables professionals from different fields to exchange knowledge coherently and efficiently.

On this basis, concrete crisis prevention measures can be defined and are systematically outlined in the following checklist (Table 1):

Table 1: Crisis prevention checklist

Measure	**Goal**	**Source**
Establish integral risk management	Linking relevant management systems to ensure effective prevention	Meissner & Schach, 2019, chap. 1-2
Develop a strategic communication culture	Foster transparency, normalize open handling of errors, and promote early problem detection	Meißner & Schach, 2019, chapter 1.3
Engage all employees	Strengthen participation and raise crisis awareness throughout the organization	Meißner & Schach, 2019, chap. 1.3-1.4
Implement structured complaint and feedback systems	Detect emerging moods and issues early	Meissner & Schach, 2019, Chapter 3
Create a crisis communication manual	Ensure rapid and coordinated responses in crisis situations	Meissner & Schach, 2019, chap. 13, 15
Conduct regular crisis simulations and training	Improve practical response capacities under realistic conditions	Meissner & Schach, 2019, chap. 13, 16
Use digital monitoring and communication tools	Identify external risks early and enhance responsiveness	Meissner & Schach, 2019, chap. 9, 15
Promote interdisciplinary cooperation	Break down silo structures and improve both vertical and horizontal communication to increase efficiency	Meissner & Schach, 2019, chap. 3, 5
Conduct post-crisis analysis (debriefing)	Learn from past crises to prevent future ones	Meissner & Schach, 2019, chapter 1.4

Maintain a learning system	Support the ongoing development of prevention structures	Meißner & Schach, 2019, chapter 1.4
Prepare managers for crisis scenarios	Equip leaders to moderate crises with confidence and emotional stability	Meissner & Schach, 2019, chap. 13, 16
Strengthen communication skills through training	Facilitate more efficient and coherent collaboration across departments	Brunner et al, 2022, p. 27

1.2 Managing and controlling processed information

In addition to communication, the management and control of processed information play a vital role in ensuring clarity, consistency, and strategic decision-making. To prevent misunderstandings and guarantee reliable communication across teams and stakeholders, organizations must implement a concept for coordinating communication codes. Such a framework ensures that all participants use consistent terminology and interpret technical terms uniformly a particularly critical requirement in international or interdisciplinary contexts (Kühn-Schwendimann, 2024).

Coordinating communication codes

Establishing a shared vocabulary is essential for successful professional communication. According to Schmitz (2024, p. 155), the process begins by identifying and standardizing all key terms and concepts. Each term should then be clearly defined, documented, maintained, and updated using a standardized method (Schmitz, 2024, pp. 163-164). Brunner et al. (2022, p. 25) highlight that this coordination is especially important in interdisciplinary teams or organizations with diverse expertise. Consistent terminology reduces misunderstandings and increases the overall efficiency of communication processes.

Formalizing information structures

Beyond terminology management, effective information governance also requires the formalization of how information is presented and documented. Reports, datasets, and records should follow standardized formats to ensure their quality, traceability, and long-term usability (Böhm, 2024). Standardized documentation enhances reporting consistency and supports mutual understanding across professional

contexts. As Stillebroer & Planon (2025) note, structured information management is a key prerequisite for maintaining high information quality.

Examples include:

- Standardized templates for project status or risk reports, which enable structured data entry and comparability (Strasser, 2024);
- Documentation guidelines such as the FAIR principles (Findable, Accessible, Interoperable, Reusable), which support the sustainable use of research data (TU Wien, n.d.);
- Compliance with norms such as DIN EN ISO 9001:2015, which define systematic requirements for documentation in quality management processes (cited in Kohlscheen, 2022).

Ensuring information security

A further key element of information management is the protection of sensitive data. According to Weippl and Schrittwieser (2024), organizations should implement a range of security measures, including access controls, encryption protocols, and regular security audits. These mechanisms help prevent unauthorized access or manipulation, especially in the case of personal or confidential information. Security audits serve as an effective method for identifying vulnerabilities early and taking appropriate countermeasures.

Modeling information using constructs

Another central component of advanced information management is the modeling of data through information constructs. In organizational and research contexts, large and interrelated data volumes often require structured frameworks to be rendered usable. Depending on the application, such modeling may take the form of relational databases, semantic networks, or ontologies (Stock & Stock, 2008, pp. 40-42). By visualizing and interpreting information flows, these constructs systematically structure knowledge and provide valuable support for internal decision-making (Heinrich et al., 2014, p. 520).

Towards effective information management

A well-structured information management system forms the foundation of a resilient and successful organization. Transparent communication pathways - internally and externally - build trust and ensure a smooth flow of information, directly impacting a company's public image (Buchholz & Knorre, 2023, pp. 11-14).

Effective information management is grounded in core principles such as transparency, confidentiality, and relevance, which are also central to good corporate governance (OECD, 2015). Additionally, organizations must incorporate proactive crisis prevention strategies to remain operational in times of disruption and mitigate potential damage (Meißner, 2019a, pp. 45-49).

Bringing together:

- consistent terminology (Kühn-Schwendimann, 2024),
- formalized information structures (Böhm, 2024),
- robust security systems (Weippl & Schrittwieser, 2024), and
- standardized documentation practices (Heinrich et al., 2014)

enables organizations to exercise controlled information management, which in turn significantly enhances both communication quality and operational performance.

1.3 Technological support for information flow

Selecting and implementing information technology

In the context of increasing digitalization in work and life, the selection and implementation of appropriate information technologies has become crucial. In the field of information management, technical tools support the efficiency and effectiveness of organizational information processes, promoting formalization and standardization (Schulz-Schaeffer & Funken, 2008, p. 11). This presents organizations with the challenge of identifying the right technologies to standardize, digitize, and simplify communication and workflows.

The first step involves a comprehensive analysis of internal organizational needs to ensure that selected technologies align with actual requirements. Key factors to

consider include data volume, existing IT infrastructure, and long-term development prospects. A thorough evaluation covering databases, content management systems, customer relationship management platforms, and specialized analytics tools - is essential to ensure optimal integration (Turban et al., 2018, pp. 47-49).

Analyzing communication patterns and addressing barriers

Selecting appropriate information technology requires a thorough understanding of an organization's internal communication structure. While in the past, "traditional channels such as letters, employee magazines, posters, roll-ups, and flyers"[8] were commonly used (*Interne Kommunikation - Instrumente, Strategie, Konzept*, 2022), these are now largely considered outdated. Today, internal communication relies almost exclusively on digital tools. However, as emphasized by the authors of *Interne Kommunikation - Instrumente, Strategie, Konzept* (2022), even digital communication should not be guided by intuition or emotion alone. Instead, it requires a precise analysis of the organization's initial communication landscape to identify appropriate strategies and technologies. This analysis should include a mapping of typical information flows, preferred communication channels, and potential communication barriers.

Communication barriers can take many forms. They may be technical, such as system incompatibilities, or human-related, such as cultural misunderstandings or difficulties arising from cognitive or linguistic differences (Rink, 2019, pp. 30-32):

- Language barriers: Differences in native languages or limited language proficiency can lead to misunderstandings (Rink, 2019, pp. 30-32).
- Specialist language barriers: Technical terminology or abbreviations may not be uniformly understood across teams (Buchholz & Knorre, 2023, p. 19).
- Cultural differences: Diverging values, norms and communication styles can result in misinterpretation (Rink, 2019, p. 31; Schirrmacher, 2023, Chapter 1.6).

8 Source text: „klassische Kanäle wie Briefe, Mitarbeitermagazine, Plakate, Rollups und Flyer"

- Cognitive barriers: Variations in information processing styles or cognitive overload can complicate understanding and lead to unequal communication dynamics (Rink, 2019, p. 32).
- Hierarchical communication barriers: Fear of negative consequences or excessive respect for authority may inhibit open and honest dialogue (Buchholz & Knorre, 2023, p. 18).

To reduce or eliminate these barriers, organizations should pursue a dual strategy:

- deploy user-friendly, technologically compatible systems to overcome technical obstacles, and
- invest in employee training to strengthen communication competencies and address human-related barriers (Schirrmacher, 2023, p. 8).

Relevant training measures include:

- intercultural training,
- workshops on communication skills, and
- programs to enhance media and technical language competence.

These initiatives provide a solid foundation for sustainably reducing communication barriers and for systematically shaping internal communication structures in line with organizational goals.

Clear assignment of roles and responsibilities

According to Zenke et al. (2020, p. 2), organizations must clearly define and assign responsibilities to ensure a smooth digital flow of information. Everyone involved in the process - such as information managers, data analysts, or communication officers - must be fully aware of their tasks and areas of responsibility. This clarity is essential to meet operational requirements and to carry out assignments accurately and reliably.

Particular attention must be paid to the management and protection of sensitive data. Zenke et al. (2022, pp. 15-16) emphasize that roles related to data security must

be clearly regulated to protect against unauthorized access. By assigning responsibilities in a targeted and structured way, companies strengthen their adherence to compliance policies, which ensure that employees follow all relevant laws, regulations, and ethical standards. This protects organizations from legal consequences and reputation loss (Zenke et al., 2020, p. 15).

Continuous adaptation and optimization of systems

Turban et al. (2018, p. 66) suggest regular audits, feedback loops and the integration of innovative technologies such as artificial intelligence for data analysis, blockchain for improved data security or cloud solutions for scalable IT infrastructures to check that systems are up to date. In addition to up-to-dateness checks, regular maintenance and security updates are required to prevent system failures and ensure optimal performance.

Technological change continues to advance rapidly in today's world (*IT-Trend: Revolutionäre Technologien und ihre Auswirkungen auf die Zukunft*, 2024). However, not only technological progress drives the need for continuous adaptation - changing business requirements, legal updates, and regulatory developments also require organizations to regularly review their information management systems to keep them current (Turban et al., 2018, p. 62).

Turban et al. (2018, p. 66) recommend a range of strategies for maintaining up-to-date systems, including:

- regular system audits,
- structured feedback loops,
- integration of innovative technologies, such as: artificial intelligence for data analysis, blockchain for enhanced data security and cloud solutions to enable scalable IT infrastructures.

In addition to these modernization efforts, routine maintenance and security updates are essential to prevent system failures and ensure reliable system performance.

Training and support for employees

Given the rapid pace of technological development, organizations must actively support employees by offering regular training on the implemented tools (*Mitarbeiterschulung: Konzepte, Methoden & 5 Praxistipps*, 2022). Keeping up with technological advancement requires continuous learning, which includes both the use of technology and the related security protocols, software programs, and system updates.

Beyond fostering technical understanding, such training measures enhance employee motivation - helping to prevent mistakes and increase both engagement and satisfaction. These improvements have a direct impact not only on a company's competitiveness, but also on the work environment and the quality of results (Zenke et al., 2020, pp. 144-145).

1.4 Relevance of the work in the context of information process management

1.4.1 Organization and management of information processes in the context of qualitative research

Qualitative research that, like this study, focuses on the investigation of a single case requires effective organizational structures to manage the resulting information processes in a targeted and meaningful way. Precisely because such research designs address individual cases or previously unexplored phenomena, a particularly careful and precise approach is needed to maintain transparency throughout the research process and to minimize potential bias. Such an approach must remain comprehensible to external observers at all times, ensuring the scientific validity of the findings. Managing information processes in this context demands systematic planning, structured data collection, and methodologically sound analysis (Yin, 2003, Chapter 3).

Structured data acquisition and storage

According to Mayring (2020, pp. 496-502), one of the key components of information processing is the systematic collection of relevant data from diverse

sources. These sources may include: interviews, behavioral observations, psychometric tests, artifacts, and medical or social reports. To enable later analysis based on scientific standards, the collected data must be documented in a standardized format and stored in a clear and traceable manner.

Another essential element is the methodological validation of the data collection procedures used. Applying methodological triangulation - the combination of multiple data collection methods - and comparing results with existing theories help ensure that the data is both reliable and valid, and that it meets the quality standards of academic research (Mayring, 2020, pp. 497-503). Since qualitative research involving single cases frequently handles sensitive and personal data, such information requires special security protocols to prevent unauthorized access or manipulation (*Datenschutz in der Forschung*, 2024). Accordingly, data should be protected using robust security measures, and the storage location must be secured with encrypted access mechanisms to comply with data protection regulations. Additionally, a multi-level backup system is essential to prevent data loss and to guarantee long-term availability and integrity of the stored information (Molnár-Gábor, 2023, pp. 144-146).

Precise data analysis

Following collection and storage, the data must be analyzed in a methodologically grounded manner. Qualitative research offers a range of analysis techniques - including qualitative content analysis and the grounded theory method - which allow for the exploration of individual perceptions and experiences using a variety of data sources. Within this context, narrative and thematic analyses are particularly effective in identifying recurring patterns and in systematically interpreting them (Mayring, 2020, pp. 503-505).

In addition to qualitative methods, researchers often apply quantitative techniques to supplement the analysis. These statistical approaches offer several advantages:

- They produce objective findings that can be generalized,
- help identify correlations and trends, and

- allow for hypothesis testing using statistical procedures.

By combining qualitative and quantitative strategies, mixed-methods approaches provide a comprehensive and holistic view of the individual case under investigation (Baur et al., 2017, pp. 15-20).

Coordination of communication processes in research

Effective coordination of communication processes hinges on the creation of a consistent and unified terminology. As Schmitz (2024, p. 152) explains, professional communication in research is fundamentally geared toward knowledge transfer. However, successful communication can only occur if all participants - researchers, participants, readers, and peers - share a common understanding of the terms used (Schmitz, 2024, p. 156). This requirement becomes even more critical in interdisciplinary research projects, where multiple disciplines collaborate and must consider different methodological frameworks (Brunner et al., 2022, p. 6). Consistency in technical language reduces the risk of misunderstanding and contributes to the success of collaborative research. In addition to shared terminology, the coordination of communication processes must account for the close cooperation between researchers, medical professionals, and other relevant stakeholders. This ensures not only a coherent and consistent information flow, but also compliance with data protection standards.

Ensuring information security

A central responsibility of information management is the protection of sensitive personal data, encompassing both data storage and processing, and this protection must be ensured at all times (*Datenschutzrecht*, 2025; Zenke et al., 2022, pp. 15-16). To prevent unauthorized access, the organization must implement specific security measures, including encrypted data transmission, access control systems, and routine security audits (Molnár-Gábor, 2023, pp. 146-148). This requirement becomes especially significant in the context of this study, which involves the documentation of

a complete individual life history, including deeply intimate and personal insights from the participant serving as the individual case.

In addition to technical measures, it is imperative to adhere to ethical research guidelines that safeguard the confidentiality of data. Researchers are required to ensure the protection of participants and must obtain informed consent prior to collecting and analyzing any personal information (Hebrank, 2024). Furthermore, to comply with data protection laws, all descriptive elements that could lead to the identification of a participant must be fully anonymized (*Datenschutz in der Forschung*, 2024).

Continuous adaptation and optimization

The rapid advancement of scientific methods and digital technologies demands ongoing adaptation and review of research practices. Innovations such as AI-based data analysis and digital documentation systems significantly improve both the effectiveness and precision of empirical research. To keep pace with these developments, the German Psychological Society (DGPs: Deutsche Gesellschaft für Psychologie) recommends that researchers engage in continuous professional development, enabling them to apply modern and representative methods in their respective fields of inquiry. The implementation of evaluation mechanisms further supports researchers in assessing the suitability and quality of the tools used in their information processes and enables adjustments when necessary (Abele-Brehm et al., 2024, pp. 134-135).

In qualitative research, however, adaptation and optimization are not limited to technical innovations in data collection or documentation. They also concern the research process itself, which is inherently shaped by flexibility and openness. Because qualitative inquiry often unfolds iteratively, gaining new insights as the investigation progresses, the research design must remain responsive to the evolving subject of study. Accordingly, adaptation and optimization extend beyond methodological choices to include theoretical frameworks and research questions, both of which may require adjustment to allow for a successful and context-sensitive analysis (Lamnek, 2010, pp. 23-24).

1.4.2 The work in the context of information process management

Within the specific context of this dissertation - focused on the management of information processes in the analysis of attachment disorders in the context of social-emotional handicaps - the precise and systematic organization and execution of information processes is essential to meet the scientific standards of qualitative research. This study centers on the detailed investigation of a single case, which creates specific demands for information management. Both the methodological structuring and the evaluation of information processes are critical to ensure a valid and transparent analysis (Yin, 2003, Chapter 3).

Coordination of communication codes

Coordinating communication codes - understood here as the definition and standardization of terminology - ensures a shared professional language. As with all research, the aim of this dissertation is to generate and communicate scientific knowledge, which, according to Schmitz (2024, p. 156), can only be conveyed successfully when all individuals involved in the information process - such as interview participants, educators, and researchers - share a common understanding of the terms used. Without unified terminology, communication barriers may arise (Rink, 2018, pp. 29-30), leading to misunderstandings and obstructing accurate interpretation. Interdisciplinary contexts are especially at risk in this regard, which is why consciously coordinated terminology is crucial for reducing linguistic barriers (Brunner et al., 2022, p. 24).

To support coherent and precise communication before, during, and after the research process, this study provides detailed definitions of all central terms - such as *attachment disorder*, *social-emotional handicap*, and related categories - in Chapter 2.

Formalization of information forms

In qualitative single-case studies, the formalization of information forms should take place using standardized formats for data collection and documentation. According to Kuckartz (2020, p. 69), this includes bringing together diverse data types - such as interviews, documents, and psychometric tests - and interpreting them

transparently. A consistent and structured presentation of data forms the foundation for subsequent analysis and interpretation, while also contributing to the reliability and quality of the information (Mayring, 2020, pp. 498-500). The concrete implementation of such standardization within this study is described in detail in Chapters 3 and 4.

Information security

Robust information security measures are indispensable to ensure the integrity and confidentiality of sensitive personal data. Since this study is based precisely on such data, strict data protection protocols must be applied. According to the Data Protection Law (*Datenschutzrecht*, 2025), access must be limited via access control systems, ensuring that only authorized individuals (specifically, the author of this dissertation) can view the data. Additionally, encryption must be used during both data storage and transmission (Weippl & Schrittwieser, 2024, p. 403).

Furthermore, compliance with ethical research guidelines is mandatory. This includes obtaining informed consent from all participants and implementing data protection measures, such as the complete anonymization of the study participant, ensuring that no personal identification is possible (*Datenschutz in Der Forschung*, 2024).

Details on compliance with these essential standards are provided in Section 3.1.3 of this dissertation.

Qualitative methods in information modeling

Qualitative methods are particularly suitable for collecting and representing complex, subjective data, especially when exploring lived experience. In the context of this case study, methods such as qualitative content analysis, narrative analysis, and grounded theory allow researchers to gain deep insights into the individual experiences and emotional responses of the person being studied (Creswell & Poth, 2017, pp. 209-210; Mayring, 2020, pp. 495-498). The qualitative methods used in this dissertation are presented and discussed in detail in Chapter 3, with a focus on ensuring transparency in the research process.

Quantitative methods in information modeling

According to Creswell and Poth (2017, pp. 209-210), quantitative methods complement qualitative approaches by using statistical analyses and numerical data to reveal patterns and relationships. In this single-case study, quantitative methods such as descriptive statistics, correlation analysis, and regression analysis are used to support and supplement systematic data evaluation. Several standardized questionnaires were used in the course of this study; these instruments are also presented and discussed in Chapter 3.

Integration of methods in information constructs

The integration of qualitative and quantitative methods into composite information constructs allows for a more comprehensive analysis of the collected data. A combined model can, for example, link the qualitative insights into the participant's subjective experience with the quantitative data on behavioral patterns and statistical relationships (Creswell & Poth, 2017, pp. 221-222). This approach enables the evidence-based derivation of implications and concrete care strategies. A full description of the mixed-methods approach used in this study is provided in Chapter 3.

Effective information management

Effective information management in the context of a single-case study requires continuous monitoring and adjustment of processes to ensure that: information flows smoothly, and data integrity is consistently maintained.

This includes:

- careful planning of data collection,
- implementation of quality control procedures, and
- ensuring that all participants are appropriately trained and possess the necessary competencies to handle data responsibly (Creswell & Poth, 2017, p. 217).

The research process in this dissertation is continuously reviewed to guarantee alignment with current scientific standards and practical requirements. In line with the

process-oriented character of qualitative research, it is also examined on an ongoing basis whether the research design needs to be adapted in response to newly emerging information (Lamnek, 2010, p. 21). Where necessary, appropriate modifications are made.

1.4.3 Intended consequences and possibilities of the organization and management of information processes in the context of the dissertation

The precise organization and effective management of information processes in the context of this dissertation, titled “Management of Information Processes in the Analysis of Attachment Disorders in the Context of Social-Emotional Disability”, may yield significant positive effects for the professionals involved in care and support. These include:

1. Improving diagnostic accuracy: Systematically collecting and analyzing relevant data enables professionals to make more precise diagnostic assessments. Consistent and detailed documentation of symptoms and behaviors allows specific characteristics of attachment disorders to be better recognized and understood. A central objective of this dissertation is to identify and describe the most important information required for diagnosis, thereby creating a well-founded basis for application in social practice.
2. Targeted intervention planning: The findings from this study can support the development of tailored care plans. Through careful analysis of relevant data, new insights may emerge that enable the design of individualized intervention strategies, addressing the specific needs and challenges of the individual affected.
3. Effective communication and coordination: Identifying relevant information and developing a shared professional language, in line with Schmitz (2024, p. 155), may provide the foundation for clear communication structures and facilitate care planning. This, in turn, can lead to the implementation of regular interdisciplinary meetings, ensuring that all professionals involved are informed and aligned. The resulting improved collaboration and coordination - for example, among psychologists, specialist services, social

workers, and other stakeholders - can contribute to more coherent and comprehensive care for individuals with attachment-related challenges.

1.4.4 Aim of the research in terms of managing the information process in the analysis of attachment disorder

The aim of this dissertation is to systematically organize and manage the information process involved in the analysis of attachment disorders, in order to establish a structured foundation for the information needed and the implications derived from it.

This overarching goal is to be realized through the following five steps:

1. Identification of relevant information: The study seeks to systematically determine which specific data and information are necessary for the diagnosis and analysis of attachment disorders in the context of social-emotional disability. This includes conducting a comprehensive literature review, evaluating all available case-related materials, carrying out an expert interview, and collecting biographical data. Additionally, standardized data will be gathered through the use of questionnaires to support the identification of relevant information.
2. Categorization and structuring: The collected data will be sorted into clear and coherent categories to ensure consistent and uniform documentation. Specific criteria will be developed to assess the relevance and significance of each piece of information.
3. Development of necessary communication processes: Based on the information needs and professional requirements of all involved (e.g. interviewees, educators, and researchers), communication processes will be defined and designed. The objective is to develop concepts for precise and coherent communication that enhance the efficiency and accuracy of information exchange. This step is essential for achieving the fifth step below.
4. Derivation of implications: The structured information base will serve to derive implications for diagnosis and treatment. The discussion will address how the identified information can enhance diagnostic precision and support the development of more targeted intervention strategies.

5. Development of a model: Drawing on the findings generated, the study will develop a model for managing the information process. This model is intended to serve as a practical guide for professionals, enabling them to efficiently collect, structure, and utilize relevant information in real-world practice.

Long-term implications

The systematic approach developed in this dissertation has the potential to generate far-reaching implications for addressing attachment disorders in the social care context:

1. Improved quality of life for those affected: More accurate diagnoses and personalized care plans can substantially enhance the well-being of those affected and support their social participation.
2. More efficient use of resources: A coordinated approach ensures that available resources are used more effectively. This not only relieves professional staff by reducing overload but also helps increase motivation and satisfaction.
3. Strengthening professional competence: The model and guidelines developed in this dissertation can serve as a basis for training and professional development programs, thereby contributing to an increase in specialist competence. The resulting professionalization of practice strengthens the individual capabilities of professionals, improves work quality, and promotes both resilience and a positive working climate as outlined by Zenke et al. (2020, pp. 144-145).

Conclusions and Recommendations from Chapter I

The management of information processes serves to ensure the effective organization of knowledge transfer, thereby enabling knowledge to be optimally used as a strategic resource (Bullinger et al., 2003, pp. 362-363). In addition to generating, systematically collecting, transferring, and applying information using appropriate technologies for data processing and storage, information security also plays a decisive role. An optimally managed information process ensures that information reaches the right people at the right time, and in the required quality (Heinrich et al., 2014, pp. 52,

282). Since this information flows through various communication channels, a functional communication culture must be established and maintained.

On the one hand, this culture concerns internal communication, which should be characterized by clear and transparent pathways that help to prevent information loss and misunderstandings. A clear information architecture, which defines hierarchies and responsibilities, supports both vertical and horizontal communication and is especially beneficial in this context (Buchholz & Knorre, 2023, pp. 12-14; Bullinger et al., 2003, p. 49). On the other hand, external communication must also be structured with a focus on transparency and consistency, in order to build trust among stakeholders and effectively represent the organization's image to the public (Buchholz & Knorre, 2023, pp. 18-19). Principles such as transparency, confidentiality, and relevance are characteristic of good governance, as they support informed decision-making and ensure compliance with data protection regulations (OECD, 2015).

Another key component of information process management is the implementation of crisis prevention mechanisms. These allow organizations to detect crisis signals at an early stage and implement appropriate measures so that they remain capable of acting even under crisis conditions (Meißner, 2019a, pp. 45-49). This includes both clear crisis communication strategies and defined escalation levels, as well as the development of a resilient communication culture that contributes to long-term stability (Washausen & Meißner, 2019, pp. 12-15).

Furthermore, managing and controlling information requires, in addition to the standardization and formalization of reports, datasets, and documentation, the development of a uniform terminology. This avoids misunderstandings and supports coherent, high-quality communication exchange (Böhm, 2024; Schmitz, 2024, p. 155). Robust data security is equally essential - especially when dealing with sensitive personal information - to prevent unauthorized access or misuse (*Datenschutzrecht*, 2025; Zenke et al., 2022, pp. 15-16).

When considering the use of technologies to support information management, implementation should be preceded by a careful analysis of the internal communication structure, an identification of potential barriers, and a review of the current relevance and functionality of the technologies (*Interne Kommunikation - Instrumente, Strategie, Konzept*, 2022). Given the rapid pace of technological development, tools must be continuously monitored and adapted to current conditions (Turban et al., 2018, p. 66). Regular employee training and continuing education should also be provided to increase motivation, satisfaction, and quality of work (*Mitarbeiterschulung: Konzepte, Methoden & 5 Praxistipps*, 2022).

The application of these concepts to the present study necessitates the precise organization of information processes from a research-oriented perspective. This begins with the theoretical development of relevant terminology, continues with the formulation of research hypotheses, and includes the presentation of the chosen methodology, structured data collection, the assurance of methodological transparency, and compliance with research ethics guidelines throughout the study. Finally, the findings are subjected to interpretative analysis and discussion.

The overarching objective is the development of a framework model that facilitates more accurate and holistic diagnostic practices and provides a foundation for targeted care planning and suitable structural conditions. In addition, the model supports more efficient communication among professionals, which in turn can contribute to the long-term improvement in quality of life for those affected, the more targeted use of available resources, and the enhancement of professional competence in the social sector.

The next chapter presents the theoretical foundations on which the development of the proposed model for the analysis and support of attachment disorders is based. These include attachment theory, developmental psychology, and neuroscientific approaches, which are examined in an interdisciplinary manner and form the conceptual basis for the model. This integrated perspective contributes to a systematic understanding of the complexity of attachment disorders and enables the targeted structuring of relevant information.

2. CHAPTER II. THEORETICAL FOUNDATIONS OF ATTACHMENT DISORDER AND THE SOCIAL-EMOTIONAL HANDICAP

In the context of attachment theory, John Bowlby marked a turning point in the 1950s with his emphasis on the essential role of maternal attachment and the negative effects of separation from caregivers on children, especially the mother (Bowlby, 2001, p. 7). His work for the World Health Organization (WHO), in which he investigated the relationship between separation from attachment figures and the associated mental, social and emotional consequences on the health of homeless children in the post-war period, catalyzed the continuing success of attachment theory to this day (Bowlby, 1952, p. 6). Bowlby and his colleague Mary Ainsworth revolutionized the perspective on the care of infants and young children by demonstrating through empirical studies that the care of children goes far beyond the purely technical care that had been the standard up to that time (Ainsworth et al., 2015, p. 358). Bowlby argued that the desire for close emotional relationships is a fundamental human need that persists from birth to old age and is innate in every human being (Bowlby, 2021, p. 98). Ainsworth supplemented the theory with the aspect of sensitivity, which describes the quality of the attachment relationship with the child and has a significant influence on the quality of attachment represented later (Ainsworth et al., 2015, p. 358). A secure attachment, especially in the first years of life, characterized by continuity, sensitivity, physical contact, care and maternal love, promotes the positive development of a child (Johnson et al., 2022, p. 3) and forms the basis for social integration in a complex and individually oriented society.

In contrast, insecure attachments can lead to attachment disorders, which are associated with a variety of symptoms such as ADHD, language deficits, aggressive tendencies or similar difficult social behavior as early as childhood. In adulthood, the consequences of insecure attachment may manifest in either an idealized or negative self-image, poor emotional and behavioral regulation, and a tendency toward aimlessness, neglect, or even addictive behavior (Trost, 2017, p. 44). Recent studies indicate that insecure attachment can trigger a chronic state of physiological alertness, which is reflected in elevated cortisol levels and dysregulation of the stress response

system (Zietlow et al., 2016, pp. 84-85). In the absence of social support, such dysregulation may progress into chronic conditions, positioning stress as a key risk factor for both physical and mental health (Zietlow et al., 2016, p. 85). Before turning to the neuroscientific findings and the extent of brain morphological changes associated with a dysregulated stress system, Chapter 2.1 provides an in-depth exploration of the origins and conceptual foundations of attachment theory.

2.1 History of attachment theory

The roots of attachment theory go back to John Bowlby's groundbreaking work in the 1950s. In his 1958 publication *The Nature of the Child's Tie to his Mother*, Bowlby examined the special significance of early childhood attachments to primary caregivers, in this case mothers, for psychological development. He challenged the prevailing psychoanalytic view that children were attached to their mothers solely for the purpose of nourishment. Instead, he described attachment as an independent motivational system aimed at the child's safety, protection and emotional needs, which is biologically determined (Bowlby, 2006, pp. 18-20). Based on these findings, he developed the concept of internal working models, which later became an essential component of attachment theory (Bowlby, 1982, p. 350). The internal working models he proposed represent cognitive structures that encompass an individual's ideas, expectations, and evaluations regarding the availability and responsiveness of attachment figures. These mental representations develop from the attachment experiences of early childhood and, on this basis, control attachment behavior and emotions in later life (Bowlby, 1982, pp. 350-353). The internalization of these working models shapes the child and determines how it interprets and reacts to its environment and interpersonal relationships as an adult. They therefore act as a cognitive basis for the expectations regarding support, care and security that are projected in relationships with other people. Consequently, the internalized working models exhibit relative stability over time, which explains the continuity and coherence of individual attachment behavior (Bowlby, 1982, p. 364).

According to Bowlby (1982, p. 271), attachment develops in the first years of life through reciprocal interaction, emotional exchange and communication with the

attachment figure. Through the innate motivational system, the infant has the need to seek protection, closeness and affection from a familiar attachment figure in situations that trigger fear, insecurity or stress. The process of this first tentative attachment begins immediately after birth and develops into an interactive, reciprocal attachment system (Bowlby, 1982, p. -xv-). Against this background, Bowlby (2006, pp. 257-259) developed the 4-phase model of early childhood attachment relationships, which will be briefly outlined for the sake of completeness and in Bowlby's appreciation.

Pre-phase of bonding (birth to approx. 2/3 months): In this phase, infants show instinctive behavior such as crying and smiling with the aim of attracting the attention and care of their parents. At this stage, the infant's reaction is not yet directed towards specific people; it cannot yet distinguish between familiar and unfamiliar people.

Formation phase of attachment (3 to 6 months): During this phase, infants begin to differentiate between people and show a preference for familiar faces. They react positively to interactions with these people but can also be reassured by strangers.

Targeted attachment phase (6 months to 3 years of age): Now the child begins to show active attachment behavior and clearly differentiates between people. In particular, it develops intensive attachment behavior to the primary attachment figures, which are usually the parents. It shows clear discomfort when these people are not present and develops the first signs of separation anxiety. At the same time, its behavioral repertoire increases during this phase.

Reciprocal relationships phase (from around the age of 3): With increasing age and cognitive development, children begin to better understand the feelings and intentions of their attachment figures. They adapt their attachment behavior and develop more complex social and emotional relationships.

If a child does not experience a loving bond with an attachment figure, Bowlby describes this condition as maternal deprivation (Bowlby, 1952, p. 370). Deprivation arises not only from the physical absence of the mother or an attachment figure, but also from a lack of loving care and is defined as the loss of basic needs (Schierenbeck, 2012). Deprivation can be partial or total. Partial deprivation manifests itself in

symptoms such as "(...) anxiety, excessive demands for love, powerful feelings of hatred and, as a result of the latter, guilt and depression"[9]. (Bowlby, 2001, p. 9). Total deprivation has even more serious consequences, which can extend to the complete destruction of interpersonal skills, such as the ability to establish contact with others (Bowlby, 1982, p. -xxvii-; Bowlby, 2021, p. 42). Bowlby sees the roots of mental suffering and mental illness in these phenomena.

Mary Ainsworth, an outstanding student of John Bowlby, made a significant contribution to the further development of attachment theory. As early as the 1950s, during her field research in Uganda, she discovered that securely attached children used their attachment figures as a secure base from which they could explore and discover the world. In stressful moments, the children returned to this secure base. These field studies also contributed to a cultural validation of her discoveries by Ainsworth (Ainsworth et al., 2015, pp. xi-xii). This extension of attachment research to different cultural contexts emphasized the universality of attachment patterns.

From these observations, Ainsworth developed innovative methods for identifying and categorizing attachment patterns (Ainsworth et al., 2015, pp. 3-22). Her groundbreaking work, particularly the development of the Stranger Situation Test as a result of her observations (Ainsworth et al., 2015, pp. 31-44), revolutionized research in this area. The Stranger Situation Test (FST), a standardized experiment, examines the attachment quality of 12-18-month-old infants to their caregiver in a stressful but controlled environment. The test comprises eight episodes, each lasting a maximum of three minutes:

1. Child and mother or caregiver enter the room with toys.
2. A stranger comes in and interacts with the caregiver and then with the child.
3. The caregiver leaves the room inconspicuously (first separation).
4. The child is alone with the stranger (reaction is observed).
5. The caregiver returns (first reunion), the stranger leaves the room.

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9 Source text: „(…) Angst, exzessive Liebesansprüche, kraftvolle Hassgefühle und als Folge der letzteren Schuld und Depression."

6. The caregiver leaves the room again (second separation - child remains alone).
7. The stranger returns (observe the child's reaction).
8. The reference person returns (second reunion, most important observation).

Ainsworth et al. (2015, pp. 3-22; pp. 95-113) identified three main attachment styles based on the FST:

1. Secure attachment: Children with a secure attachment use the primary caregiver as a safe haven or secure base from which to explore the environment. They show restlessness when the caregiver is absent but are easily soothed when the caregiver returns.

2. Insecure-avoidant attachment: In children with an insecure-avoidant attachment, the need to explore predominates. They show little restlessness when the caregiver is absent and often avoid contact when the caregiver returns.

3. Insecure-ambivalent attachment (Insecure-Ambivalent/Resistant Attachment): Children with insecure-ambivalent attachment show excessive excitement when the caregiver is absent and are simultaneously ambivalent and inconsistent in their behavior when the caregiver returns.

In the 1980s, Main and Solomon discovered a fourth alternative as an extension of the attachment styles described by Ainsworth, which was added to the basic model described above as a further attachment style (cited in Duschinsky, 2015, pp. 32-35):

4. Insecure disorganized/disoriented attachment: Children with a disorganized attachment often show ambivalent and confused behavior towards caregivers. The attachment figure appears to be both the cause and the solution to the stressful situation, which is why the child often shows confusion or anxiety in the presence of the attachment figure. The emotional reaction is often unpredictable and shows problems in the relationship dynamics between child and caregiver. The child is unable to regulate their emotions in the presence of the caregiver (cited in Duschinsky, 2015, pp. 32-35).

Mary Ainsworth's work significantly expanded the attachment theory founded by John Bowlby. In addition to the development of the FST, Ainsworth's research is characterized in particular by the discovery and definition of the concept of sensitivity. Sensitivity refers to the caregiver's ability to recognize the child's signals accurately, interpret them correctly and respond appropriately (Ainsworth et al., 2015, p. 358). Ainsworth and colleagues emphasize that this sensitive interaction between child and caregiver is fundamental to the development of a secure attachment. According to Ainsworth et al. (2015, p. xxiii), a secure attachment is in turn crucial for the child's emotional and social development, enabling them to develop a positive self-image and a sense of self-worth.

Ainsworths et al. (2015) in conjunction with Main and Solomon's categories laid the foundation for further research into the dynamics beyond the attachment between parents and children.

Hazan and Shaver expanded attachment theory in 1987 by focusing on attachment in romantic relationships between adults. The theory was first presented in 1987 in an article entitled Romantic Love Conceptualized as an Attachment Process (Hazan & Shaver, 1987, pp. 511-512). The basic principles of their attachment theory can be summarized in three main points:

1. Security and insecurity in relationships:

The authors argue that people show similar attachment patterns in romantic relationships as they did in their childhood with primary caregivers. People who developed secure attachments in childhood tend to build trust in romantic relationships. Insecure attachment patterns resulting from insecure parental caregiving can lead to behaviors characterized by insecurity, anxiety, or avoidance (Hazan & Shaver, 1987, p. 513).

2. Attachment types: Hazan and Shaver (1987 p. 518) identified three main types of attachment in romantic relationships, analogous to the classification system of Ainsworth et al. (2015):

- Secure: People with secure attachment patterns feel comfortable with intimacy and can accept both closeness and independence in a relationship.
- Anxious: People with anxious attachment patterns tend to be insecure and worried about the state of their relationship and the value of their partner.
- Avoidant: People with avoidant attachment patterns tend to avoid intimacy, favor independence, and exhibit instability in building close relationships.

3. Relationship dynamics in adulthood:

The authors conclude that attachment patterns in adulthood are not static but can change over time through various life events and experiences in romantic relationships, which in turn influences the dynamics of attachment patterns (Hazan & Shaver, 1987, pp. 521-524).

In the following years, Bartholomew (1990) further developed the previous concept of Hazan and Shaver from 1987. Kim Bartholomew's attachment model is a theoretical approach that focuses on the study of adult attachment and represents an extension of the attachment theories described above. Her model, known as the *Four-Category Model*, takes the approach that the internal working models of attachment in adults can be divided into four main categories representing different types of attachment strategies (Bartholomew, 1990, pp. 511-512):

1. Secure:

People with a positive self-image and a positive image of others. They feel comfortable in stable relationships and can express their needs. They are also able to respond to the needs of others in a supportive way. These individuals demonstrate a healthy balance between autonomy and closeness in their relationships (Bartholomew, 1990, p. 513).

2. Dismissive-Avoidant:

People with a positive self-image but have a negative image of others. They value their independence, while the importance of closeness plays a subordinate role

in their relationships. This attachment strategy may indicate an early childhood experience of rejection or neglect (Bartholomew, 1990, p. 514).

3. Preoccupied-Ambivalent:

People with a negative self-image who nevertheless have a positive image of others. This category is characterized by an excessive search for closeness and a fear of rejection. People with this attachment pattern often have difficulty distancing themselves from their fears and worry about the availability of their attachment figures. This could be due to insecure attachment experiences in childhood (Bartholomew, 1990, p. 515).

4. Fearful-Avoidant or Disorganized:

People with a generalized negative (self-)image. They have ambivalent feelings about closeness and relationships. This pattern is often associated with unstable or insecure early attachment experiences, which can lead to difficulties in coping with stress or trauma in relationships (Bartholomew, 1990, pp. 516-517).

While Bartholomew's model focuses on the differentiation of attachment patterns in adulthood, Klaus and Karin Grossmann's (2014) long-term studies have made a significant contribution to research into the persistence and changeability of these attachment patterns across the lifespan. Their empirical studies provide valuable insights into the extent to which early childhood attachment experiences act as predictors of the quality of later interpersonal relationships. In particular, their findings showed that secure early childhood attachment correlates with more stable and trusting relationships in adulthood, whereas insecure attachment experiences are often associated with persistent insecurity in romantic and social relationships (Grossmann & Grossmann, 2014, pp. 69-72). Despite the relative stability that these patterns exhibit, they can be modified by later relationship experiences, making it possible for attachment representations to change over the life course (Grossmann & Grossmann, 2014, p. 63). It follows that although attachment patterns are highly persistent, they are not completely determined.

Another key aspect of Grossmann & Grossmann's (2014) research is the role of parental caregivers in relation to attachment. Their research shows that mothers predominantly take on functions in coping with loss by providing a secure base and emotional stability. Through empathetic support and reflective communication, they help their children to process emotional experiences, develop resilience and form adaptive coping strategies (Grossmann & Grossmann, 2014, pp. 102-104). However, fathers also have a significant influence on children's development. The researchers found that fathers with an active and physically challenging play style promote self-confidence in children. They point out that attachment is influenced by both parents and cannot be limited to mothers alone.

In a long-term study, they raised the importance of attachment to a new cultural level, similar to Ainsworth. In a cross-cultural comparison, they found that German children exhibited significantly higher rates of insecure-avoidant attachment patterns compared to children in the USA and other countries. They attributed this to the strong emphasis placed by German parents on early independence, which often led to reduced physical contact due to the early encouragement of autonomy (Grossmann et al., 1985, pp. 253-256). Grossmanns thus showed that attachment is not only subject to biological factors but is also culturally influenced.

Overall, their longitudinal studies have significantly shaped attachment research and contributed to a more nuanced understanding of attachment across cultures and throughout different stages of life.

Since the late 1990s, the findings of attachment theory have been increasingly supported by neuroscientific research, which shows that early attachment experiences not only have a lasting impact on emotional experience, but also on the structural and functional development of the brain. This topic is examined in detail below.

2.2 Neuroscientific findings in relation to attachment

More recent research in the neurosciences supports the traditional view of attachment theory through a better understanding of brain structures and functions, which has been gained through technological progress since the late 1990s using

imaging techniques. Recent reviews show that secure attachment experiences in early childhood have a lasting positive effect on the neural architecture of stress regulation, particularly in relation to the functions of the prefrontal cortex, amygdala and hippocampus (Johnson, J., 2025a). The most relevant findings further indicate that the quality of early childhood attachment experiences has a long-term impact on the structural and functional development of the brain, particularly on the right hemisphere. The right side of the brain appears to play an overriding role in stress regulation and the associated processing of emotions (Schore, 2001, p. 12).

The integration of neuroscientific methods into attachment research thus opens up new perspectives and connections as to which biological and neuronal mechanisms within the brain are activated by attachment and are involved in the attachment process, stress regulation and social interaction. The new findings have allowed traditional attachment theory to be significantly expanded, with the underlying neurobiological mechanisms supporting the previously purely descriptive perspective. The consideration of both components enables an interdisciplinary approach, which not only expands the understanding of attachment processes, but also has significant consequences for the promotion of social and emotional skills across the entire lifespan (Schore, 2001, p. 13).

2.2.1 Structure of the brain

The human brain is a marvel of nature and, according to Lenzen (2016), is the most complex biological system known to date. Its complexity makes it a popular subject of research in various disciplines, e.g. medicine, neuroscience and biology. Extensive research has already provided fundamental insights into the anatomy, neurochemistry and functional networks; questions about consciousness, decision-making and creativity have not yet been definitively answered.

The brain is the body's central control system and is characterized by special abilities: it is able to process, store and interpret information (Bear et al., 2016, p. 214; Lenzen, 2016). It weighs an average of 1.5 kilograms and, according to Lenzen (2016), consists of around 86 billion neurons that are connected to each other by a dense network of synapses. This neuronal architecture enables the brain to control important

basic functions such as breathing and heartbeat, but also to perform complex cognitive tasks such as thinking, learning, remembering and emotional processing (Bear et al., 2016, p. 190).

The brain's unique plasticity, i.e. its ability to adapt to and learn from experiences, makes it a dynamic organ that continues to develop and change throughout an individual's entire lifespan (Wenger & Lindenberger, 2016). Plasticity therefore enables the brain to react flexibly to new challenges by restructuring neuronal networks and strengthening or weakening synaptic connections. Neurochemical processes involving modulating neurotransmitters such as dopamine and serotonin influence learning and memory processes through synaptic plasticity (Wert-Carvajal et al., 2022, pp. 2-7).

The human brain has developed continuously over long evolutionary processes, resulting in the formation of both ancient and modern structures. The older structures are responsible for vital physiological functions, such as the regulation of respiration, heart rate and instinctive emotional behaviors (MacLean, 1990, pp. 15-17). These primitive brain sections represent the phylogenetically older components and are found in both humans and mammals. In contrast, the newer areas of the brain, especially the neocortex, represent the evolutionarily necessary development. They control higher cognitive functions such as abstract thinking, conscious perception and complex social interactions. (Fuster, 2002, pp. 375-376). The neocortex is particularly well developed in humans and, according to Fuster (2002, pp. 374-376), enables exceptional flexibility and adaptability to new requirements. This is where humans and animals differ significantly: while many animals act according to instinct, humans can react flexibly to changes. The differentiation between ancient and modern brain structures thus illustrates the evolutionary history and hierarchical organization of the human brain, which is crucial for understanding how it functions and the underlying aspects of behavior (Fuster, 2002, p. 378).

In the further course of this research work, the areas of the brain and the associated functions and circuits of action will be considered in a limited way. The areas that are particularly relevant from an attachment perspective in this context

according to Uvnäs-Moberg (2016, pp. 36-37) will be described in more detail (see Figure 1):

Cerebral cortex: The outermost layer of the cerebrum is responsible for more complex functions, including strategic thinking, perception, judgment, decision-making and language. It is divided into four lobes: Frontal lobe (for decision making, problem solving and planning), Parietal lobe (for sensory perception and integration), Temporal lobe (for memory and auditory processing) and Occipital lobe (for visual processing) (Bear, 2016, p. 207). The superordinate function of the cerebral cortex is thinking, according to which this area is assigned to the modern, new brain components (Uvnäs-Moberg, 2016, p. 37).

Limbic system: The limbic system is a complex set of structures in the brain that plays an important role in the processing of emotions, memory, learning and various aspects of the autonomic nervous system (Rass, 2011, p. 20). It is located in a central position in the brain (see Figure 1) and consists of several interconnected components:

1. Amygdala: Often considered the fear center in the brain (Klaes & Johnson,2016a, p. 95), the amygdala is crucial for evaluating and responding to emotional stimuli, especially those related to fear and threatening influences. It is important for conditioning fear responses and plays a role in the processing of emotional memories in particular (Rass, 2011, p. 22).
2. Hippocampus: The hippocampus is central to the formation of new memories and plays an overriding role in spatial memory. It helps to transfer experiences from short-term memory to long-term memory and is crucial for individual learning (Bear et al., 2016, p. 838). The hippocampus is also involved in processing contextual information associated with specific experiences: It stores memories of attachment experiences and helps interpret the social world based on these memories (Klaes & Johnson, 2016a, p. 96). It acts as an organizer or control center of the brain.
3. Hypothalamus: The hypothalamus mainly regulates bodily functions and ensures survival. It controls autonomic physical processes such as hunger, thirst,

sleep and sexual behavior and plays an important role in the release of hormones from the pituitary gland (Bear et al., 2016, p. 524).

The limbic system is closely connected to the prefrontal cortex (frontal lobe of the cerebral cortex, PFC for short), which is responsible for higher cognitive functions such as planning, decision-making and social interaction (Klaes & Johnson, 2016a, p. 100). These neuronal connections are fundamental for the close cooperation between emotions and cognition, making us humans social and adaptable beings. The connections enable us to make decisions that are not only rationally based, but also take emotional and social aspects into account. In evolutionary terms, this part of the brain, the limbic system, is older than the cerebral cortex and is referred to as the mammalian brain (Wiest, 2009, p. 41).

Nucleus accumbens: The nucleus accumbens is located in the ventral striatum, which is part of the basal ganglia. It lies deep in the brain, close to the amygdala and the prefrontal cortex, and is closely connected to the limbic system, making it an important interface between motivation, reward and reinforcement (Bear et al., 2016, p. 569). The nucleus accumbens is particularly relevant for the processing of rewards, the experience of pleasure and enjoyment and plays a major role in the development of all types of addictive behavior. According to Bear et al. (2016, pp. 569-572), it is also closely linked to the dopaminergic system. Dopamine is a neurotransmitter associated with pleasure and reward and is released at significantly high levels in this area, particularly in response to rewarding stimuli. The nucleus accumbens interacts with several other brain regions, including the prefrontal cortex and the limbic system. These interactions are crucial for the integration of emotional, cognitive and contextual information in the reward process.

Brainstem: The brainstem is a fundamental structure of the central nervous system and the oldest part in evolutionary terms. It contributes to the physical maintenance of life and the mediation of various motor and sensory functions by controlling bodily functions essential for survival (Uvnäs Moberg, 2016, p. 37). It connects the brain to the spinal cord and is located directly above the spinal cord and below the cerebrum and cerebellum. It helps transmit information between the brain

and the spinal cord and houses the origins of most of the cranial nerves that control sensory and motor functions in the face and head (Uvnäs Moberg, 2016, p. 38). The brainstem is essential for survival, as it is involved in coping with environmental stimuli by regulating bodily functions. Its functions are largely autonomous and are not consciously controlled but are instinctive. From an evolutionary perspective, the brain stem is also known as the reptilian brain (Wiest, 2009, p. 33).

Spinal cord: According to Uvnäs-Moberg (2016, pp. 53-54), the spinal cord is an essential part of the central nervous system and serves as the main communication pathway between the brain and the rest of the body. It extends from the brain stem to the lower spinal column and is protected within it. The main function of the spinal cord is reflexes. This part is also classified as evolutionarily old (Uvnäs Moberg, 2016, p. 36).

Hormone system: The hormone system is also called the endocrine system and is a complex network of glands and organs that release hormones directly into the bloodstream. The release or secretion regulates various physiological processes and behaviors (Uvnäs-Moberg, 2016, p. 41). Hormones are chemical messengers that transmit information between different organs and tissues in the body. They act on specific target cells, i.e. they only act on cells that have the appropriate hormone receptors, and influence many different functions, including growth, metabolism, reproduction, stress responses and the balance of the body (homeostasis) (Uvnäs-Moberg, 2016, p. 42).

According to Uvnäs-Moberg (2016, pp. 41-42), the main components of the hormone system include:

1. Hypothalamus: This component of the limbic system has already been described. As an integral component of the diencephalon, the hypothalamus connects the brain (nervous system) with the hormonal system. Its most important task is to regulate the hormone production of the pituitary gland by releasing special releasing and inhibiting hormones that either stimulate or inhibit the pituitary gland to produce hormones.

2. Pituitary gland (hypophysis): The pituitary gland is a small gland below the hypothalamus and is often referred to as the master gland. It regulates hormone production in the body and is divided into the anterior lobe (adenohypophysis) and the posterior lobe (neurohypophysis). The neurohypophysis stores and releases oxytocin and vasopressin; oxytocin in particular plays an important role within the bonding structure.
3. Adrenal glands: The adrenal glands, which sit on top of the kidneys, produce various hormones, e.g. adrenaline, noradrenaline and cortisol. These hormones are essential for the stress response, metabolism and the immune system, and cortisol in particular will play an important role below.

Visual impressions of the human brain in limited form are shown in Figure 1 below.

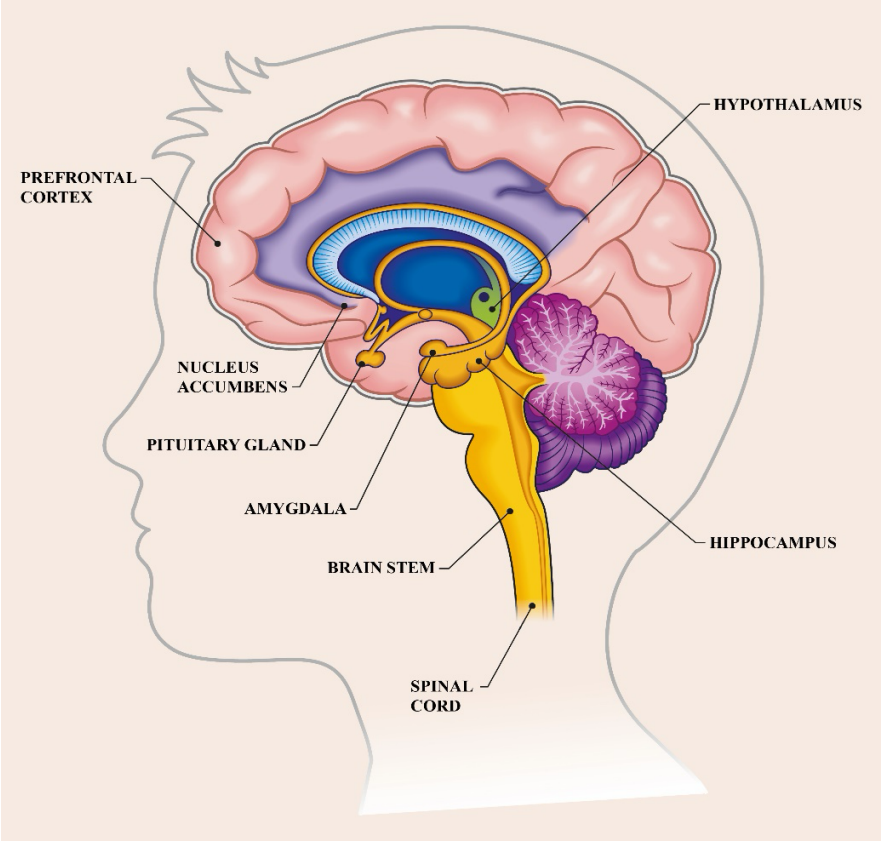


Figure 1: Structure of the brain

Source: based on iStock.com/Kopp (2014)

2.2.2 The influence of oxytocin and cortisol on bonding

Oxytocin and cortisol are two hormones that have significant effects on various physiological and psychological processes in the human body (Uvnäs-Moberg, 2016, p. 42). Attachment theory, which mainly deals with the development and significance of emotional bonds between individuals from an educational-psychological perspective, finds important biological-chemical correlates in the two hormones: according to Uvnäs-Moberg (2016, p. 125), both hormones make a significant contribution to understanding and explaining the neurobiological foundations of attachment. Due to this relevance, oxytocin and cortisol are described in more detail below.

Oxytocin: Oxytocin, often referred to as the bonding or cuddle hormone, is mainly produced in the hypothalamus and released by the neurohypophysis. According to Uvnäs-Moberg (2016, pp. 63-65), the release works via three different mechanisms: (1) it is produced in the hypothalamus and enters the bloodstream, (2) it acts as a transmitter via the nerves in the brain or (3) it diffuses directly into neighboring brain areas.

Oxytocin ensures that early bonding experiences are stored positively in social relationship processes (Strüber, 2016, p. 127). The hormone has a positive effect on social recognition, emotions, compassion, empathy and trust-building and reduces anxiety and stress reactions (Strüber, 2016, p. 156). The reduction of stress in turn forms the basis for exploration and anxiety-free exploration of the world in early childhood (Johnson et al., 2022, p. 17). In order to be able to explore, the brain needs a hormonal homeostasis between a necessary stress level for exploration and its limitation in the event of overload: this is ensured by oxytocin. It activates the production and release of the neurotransmitters dopamine, which is known as the happiness hormone and, according to Biesinger (2018, pp. 68-70), has an effect on our mental well-being, and serotonin, which has a major influence on our mood, our sleep, our sense of security and our wound healing (Biesinger, 2018, p. 49; Olivine, 2024). It also stimulates the production of endogenous opioids (endorphins), which reduce feelings of pain and promote a sense of well-being (Strüber, 2016, p. 45).

The importance of oxytocin for homeostasis and the promotion of social bonding and trust makes it a key hormone in attachment theory (Uvnäs-Moberg, 2016, pp. 156-163). This emphasizes the importance of early bonding experiences between children and their caregivers for stable emotional and social development. Oxytocin supports these bonding processes by regulating the stress system by releasing positive hormones and messenger substances to neutralize cortisol (Uvnäs Moberg, 2016, pp. 68-69; Rass, 2025, p. 117). The release of oxytocin takes place through various social interactions such as physical contact, smells and eye contact, through which signals are sent to the brain via the nerve pathways and trigger further neurobiological processes (Uvnäs Moberg, 2016, p. 46, 113). The skin and positive physical contact in particular are central to production and release (Uvnäs Moberg, 2016, p. 112; Rass, 2025, p. 119).

The skin is both our largest and oldest sensory organ (Peters, 2016, p. 99). The brain, spinal cord and skin develop from the ectoderm and thus have a common origin in the embryonic stage (Lenzen, 2016). For this reason, it is not difficult to imagine that stimulation of the skin triggers reactions even before the nerve impulses reach the brain (Uvnäs-Moberg, 2016, p. 50; Peters, 2016, p. 2). Uvnäs-Moberg (2016, pp. 50-51) postulates that the nerve impulses triggered via the skin influence our mood, generate pain or well-being and can influence other bodily functions. The author also describes that positive touch follows a similar nerve pathway to pain, but that skin contact (in contrast to pain activation) leads to the production and release of oxytocin (Uvnäs-Moberg, 2016, p. 54). Müller-Oerlinghausen et al. (2021, pp. e36-e37) also report that the human brain is positively influenced by sensory stimulation, especially touch.

In summary, oxytocin can be stimulated and released through skin contact, physical contact and attachment-oriented stimulation of other senses such as sight, hearing and smell.

Cortisol: Cortisol, a steroid hormone within the glucocorticoid class and colloquially known as the stress hormone, is primarily synthesized in the zona fasciculata of the adrenal cortex and occupies an essential position in the physiological response to stressors (Smith & Vale, 2006, pp. 383-385). Recent studies show that

cortisol responds not only to physical stress, but also to emotional stress and pain sensations from limbic brain regions, indicating a close link with psychological stress factors (Dickerson & Kemeny, 2004, pp. 355-358). Its secretion is regulated via the hypothalamic-pituitary-adrenal axis (HPA axis), which is an essential component of the endocrine system (Smith & Vale, 2006, p. 384).

During physical and psychological stress, the hypothalamus releases corticotropin-releasing hormone (CRH), which stimulates the pituitary gland to produce adrenocorticotropic hormone (ACTH). ACTH in turn stimulates the adrenal cortex to release cortisol (Smith & Vale, 2006, p. 386). An increased cortisol level leads to a negative feedback loop that reduces the production of CRH and ACTH (Smith & Vale, 2006, p. 387). However, during prolonged stress, dysregulation of the HPA axis can occur as the glucocorticoid receptors, which normally bind cortisol and thereby inhibit the release of CRH and ACTH, become less sensitive to the hormone. This weakens the negative feedback loop and cortisol secretion remains uncontrollably elevated (Ising, 2011). The effects of permanently elevated cortisol, especially if they persist over a longer period of time, affect both the body and mental well-being. Possible consequences include disorders of the immune system that promote infections and inflammation (Sapolsky et al., 2000, p. 72), metabolic changes such as altered glucose utilization and insulin resistance (Whitworth et al., 2005, pp. 292), cardiovascular problems, including high blood pressure or elevated cholesterol levels and other cardiovascular risk factors (Whitworth et al., 2005, pp. 291-293).

Psychological consequences are also associated with chronically elevated cortisol levels. These include increased anxiety and depression (Lupien et al., 2009, p. 434), sleep disturbances (Herbert, 2013, p. 456) and cognitive impairments including memory and concentration (Lupien et al., 2009, p. 435). These negative effects contrast with the short-term beneficial functions of cortisol:

In stressful situations and when the body and psyche are under extreme strain, cortisol acts as a mediator of gluconeogenesis to provide short-term energy in the form of glucose in such situations (Sapolsky et al., 2000, p. 65). However, this process simultaneously reduces functions that can be dispensed with in the short term, such as

immune defense (Ising, 2011). It consequently affects glucose availability, dampens the immune system and is associated with various physical and mental health problems when the HPA axis is dysregulated as described above (Charmandari et al., 2005; p. 267).

Studies in the context of attachment theory and the HPA axis show that early attachment experiences can have a lasting influence on the development and regulation of the HPA axis. The quality of early childhood care, especially emotional support and nurturing, has a modulating effect on the HPA axis and can have a lasting influence on resilience or vulnerability to stress (Hostinar & Gunnar, 2013, pp. 400-406). Insecure attachments in childhood are associated with persistent hyperactivity of the HPA axis in adulthood, which increases the risk of exaggerated stress reactions and mental disorders (Gunnar & Quevedo, 2007, pp. 154-156). A dysregulated cortisol response due to dysregulation of the HPA axis can therefore be an indication of insecure attachment experiences and is an important indicator in educational practice of stress processing mechanisms that have been shaped by early attachment relationships (Hostinar & Gunnar, 2013, p. 402). Children with insecure or disorganized attachment often show elevated cortisol levels, especially under stress, while securely attached children show lower and better regulated cortisol responses (Gunnar & Quevedo, 2007, p. 161). Studies of cortisol secretion provide valuable insights into the neurobiological mechanisms that influence attachment experiences and psychological well-being.

In summary, it can be concluded that oxytocin and cortisol are important correlates in the context of neuroendocrine attachment mechanisms (Uvnäs Moberg, 2016, pp. 155-156). While oxytocin is positive for the establishment of social bonds and the promotion of social closeness and trust, cortisol regulates the stress response and supports the provision of energy under stress (Gunnar & Quevedo, 2007, pp. 147-148). Both hormones are central to understanding stress responses, emotional regulation and the development of interpersonal bonds.

2.2.3 Brain development in the context of attachment theory findings

Gerhard Roth, Manfred Cierpka and Nicole Strüber jointly presented the "4-level model of personality"[10] in several publications (Roth & Ryba, 2016, p. 133-136; Strüber, 2016, pp. 49-58). This model is based on the principle of "emotion before cognition"[11] (Strüber, 2016, p. 47), which states that the brain regions responsible for basic emotional reactions that are essential for survival mature earlier than those that enable cognitive processes and flexibility. This assumption is supported by Wiest (2009, p. 23), who emphasizes the hierarchical organization of brain architecture.

Strüber and colleagues also assume that the brain is formed in successive stages of development. They assume that psychological, personal and emotional processes - such as learning experiences, which according to Roth and Ryba (2016, p. 138) take place consciously, intuitively or unconsciously - are anchored in four different levels of the brain. These levels develop at different times and comprise three limbic levels and one cognitive level, which are explained in more detail below.

1. The lower limbic level: This level comprises the hypothalamus, the amygdala, the central cave gray matter and the brain stem. It controls vital functions such as breathing, circulation, the sleep-wake rhythm and temperature (Strüber, 2016, p. 50). It is also responsible for basic affective behaviors and sensations such as fight-or-flight reactions, freezing, aggressiveness and the child's temperament (Roth & Ryba, 2016, p. 134; Strüber, 2016, pp. 50-51). These behaviors are already unconsciously shaped prenatally by the physical influences of the mother and cannot be influenced by experience or controlled influences, but they do determine a person's innate temperament (Roth & Ryba, 2016, p. 134). The aim of this level is the survival of the individual and this level is considered very difficult (if not impossible) to change (Strüber, 2016, p. 51).

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10 Source text: „4-Ebenen-Modell der Persönlichkeit"

11 Source text: „Emotion vor Kognition"

2. The middle limbic level: The amygdala, the basal ganglia, the hippocampus and the nucleus accumbens are involved at this level. This system develops shortly after birth and therefore falls into the early childhood area of attachment development (Roth & Ryba, 2016, p. 135). At this level, elementary emotions such as joy, fear, anxiety, anger, envy, and surprise (Roth & Ryba, 2016, p. 135; Strüber, 2016, pp. 51-53), as well as individual emotional learning, facial expressions, gestures, and body posture, are encoded as unconscious memories shaped by early childhood experience. This layer forms the basic structure of the developing social-emotional and psychological foundation. It stores emotional capacities, expectations, evaluations, and trust, along with "the basic categories of what is good and bad from the infant's point of view"[12] (Strüber, 2016, p. 52). Many processes at this level also take place unconsciously and memories cannot be retrieved due to infantile amnesia (Klaes & Johnson, 2016a, p. 100; Roth & Ryba, 2016, p. 138; Strüber, 2016, p. 53).

3. The upper limbic level: The more modern regions of the brain are primarily located at this level. In particular, areas of the cerebral cortex, namely the ventromedial prefrontal cortex, the orbifrontal, the cingulate and the insular cortex are included (Strüber, 2016, p. 54). These areas control the processing of conscious feelings, evaluate social events and experiences and are shaped and accompanied by the conditions of our socialization and upbringing. Morality, ethical issues, impulse control, regulation of emotions and the conscious reward system are located here and are honed over a long-lasting process that extends to childhood and adolescence in particular. Roth and Ryba (2016, p. 138) state that the maturation of these areas and levels lasts until the age of 18-20. Strüber (2016, pp. 55-56) also notes that the circuits at this level are less stable than earlier neuronal structures and that prolonged stress can delay their development or promote relapses into earlier patterns. This is because changes here are primarily brought about by social and emotional experiences, while verbal

12 Source text: „die Grundkategorien dessen, was aus Sicht des Kleinkinds gut und schlecht ist"

instructions alone have little effect. Early formed circuits remain, but are supplemented by new ones, which are more unstable. Significant or chronic stress can therefore reactivate old patterns. Nevertheless, this level is considered adaptable in comparison, so that later interventions are more effective than at the previous levels (Strüber, 2016, p. 56). Its maturation, which is only completed between the ages of 18 and 20 (Roth & Ryba, 2016, p. 138), enables increasing social integration - provided that the stress load remains moderate.

4. The cognitive-linguistic level is primarily characterized by the language centers in the left cerebral cortex and the frontal brain (dorsolateral prefrontal cortex). These regions are responsible for higher cognitive functions such as intelligence, reasoning, and insight, and operate through working memory (Roth & Ryba, 2016, p. 139). It enables linguistic and rational communication as well as planned and goal-oriented action. In contrast to the preceding limbic levels, this level does not require any previous emotional experience for its development (Strüber, 2016, p. 57). Nevertheless, its influence is not isolated: The limbic structures, especially the upper limbic level, exert a strong regulation on cognitive processes. While the cognitive-linguistic level can only have a limited effect on the limbic structures, these conversely control emotional-motivational processes that influence our thoughts and actions (Roth & Ryba, 2016, p. 136). This left hemisphere is highly flexible: its contents and circuits can be changed comparatively easily as they are not dependent on emotional experiences; adaptation is primarily achieved through cognitive processes (Strüber, 2016, p. 57). However, this does not mean that it functions independently of emotions - rather, cognitive processes are often closely linked to limbic influences, which can be seen, for example, in the emotional coloring of memories or the affective evaluation of information (Roth & Ryba, 2016, p. 136).

The middle limbic level and early bonding experiences

The middle limbic level is closely related to the early childhood attachment relationship and quality. Since the newborn is entirely dependent on the care of an attachment figure (Johnson et al., 2022, p. 14), oxytocin released during and after

childbirth elicits a surge of maternal care, prompting the mother to ensure her baby's survival through attentive caregiving (Uvnäs-Moberg, 2016, p. 89). Although the infant is unable to consciously recall early experiences during the first three to four years of life due to infantile amnesia, the limbic system - through the neural integration of the amygdala, hippocampus, and hypothalamus-facilitates the encoding of early unconscious attachment experiences within the mid-limbic level (Strüber, 2016, pp. 52, 126; Roth & Ryba, 2016, pp. 134-135). These early unconscious, non-recallable experiences have a long-term influence on emotional reaction patterns, stress regulation and attachment behavior (Lohhaus & Vierhaus, 2019, p. 101). The quality of the attachment, secure or insecure, is also stored as an "internal model of attachment in the depths of the brain"[13] (Strüber, 2016, p. 177). As a result of a secure attachment experience, oxytocin is increasingly released via complex internal processes and, with the simultaneous activation of serotonin, inhibits the release of cortisol, creating an anxiety-free environment (Strüber, 2016, pp. 177-178). Through the simultaneous activation of dopamine, the infant or toddler explores and investigates the world, while additional connections are created in the brain to be able to adapt to environmental conditions and experience. The connections in the brain are subject to the principle of stability versus deactivation: regularly used connections are stabilized, while the unused ones are broken down. Strüber speaks here of "Use it or lose it!" (Strüber, 2016, p. 29), Klaes and Johnson (2016a, p. 98) refer to the degradation as "cell death"[14]. Early experiences and the use of neuronal networks lead to learning processes in the brain that cause structural and functional changes - particularly in the networking of the three limbic and cognitive-linguistic levels: This adaptability is referred to as plasticity (Lindenberger & Wenger, 2016).

Plasticity is a fundamental feature of the nervous system and manifests itself in two forms: synaptic plasticity, which modifies the strength of existing neuronal connections, and structural plasticity, which forms new networks. These two

13 Source text: „inneres Modell von Bindung in den Tiefen des Gehirns gespeichert"

14 Source text: „Zelltod"

mechanisms enable lifelong learning and the storage of information (Lindenberger & Wenger, 2016).

Although plasticity is particularly pronounced in childhood, it is also retained in adulthood and contributes to the brain's ability to adapt to changing life and experience conditions (Kolb & Whishaw, 1998, p. 44). Particularly in the early years of life, it plays a decisive role in the development of brain regions responsible for emotion and stress regulation and social interaction. Schore (2001, p. 10) emphasizes that early childhood bonding experiences significantly influence these processes. In particular, the right prefrontal cortex and the limbic system are shaped by the quality of early relationships and are central to the processing of emotional and social information (Schore, 2001, p. 10; Rass, 2014, p. 27).

According to Wettig (2008, p. 39), child development and the associated brain development are subject to biological determinants, fixed periods that show an increased readiness to learn certain behavioral patterns. In human infants, a sensitive period occurs between approximately 6 weeks and 6 months of age (Wettig, 2008, p. 39), during which the emotional bond between mother and child is deeply encoded at an implicit and procedural level within the corresponding brain regions (Rass, 2014, p. 21). In this context, Rass (2014 pp. 19-20) describes the unique growth spurt of the brain with the accentuation of the right hemisphere, in which the limbic system is located. In the first year of a child's life, the brain experiences a significant increase in synapses, the connections between brain cells that are responsible for the transmission of information. By the age of two, the number of synapses in a child's brain reaches the level of an adult (Textor, n.d.). By the age of three, this number even doubles and remains relatively stable until the end of the first decade of life. During the adolescent years, however, a process of synapse degradation takes place in which around half of these synapses are degraded again. This process of synapse reduction is part of the normal development and optimization of the brain. Parallel to the growth of the synapses, the brain undergoes a significant increase in weight. At birth, the brain weighs around 250 grams, at the end of the first year of life around 750 grams and reaches a weight of around 1,300 grams by the age of five. This weight gain reflects

the rapid growth and development of the brain in these crucial early years of life (Textor, n.d.).

Wettig (2008, p. 39) describes the effects that unfavorable living conditions or insecure or changing attachment figures can be expected for children in this critical phase of the early years and refers to the consequences as “hospitalism damage”[15]. Children with insecure attachment experiences during sensitive phases often show deficits in social and emotional development, resulting in reduced stress tolerance and problems in forming secure attachments later in life (Wettig, 2008, p. 173). However, hospitalism can also lead to physical developmental disorders such as growth retardation and an increased susceptibility to infections.

Dannlowski et al. (2012, pp. 289-290) also confirm in their impressive study that unfavorable life circumstances such as maltreatment and insecure attachment in early childhood can lead to an overactive amygdala, a reduced frontal lobe as a control instance of the fear center and an underdeveloped hippocampus. Triggers do not necessarily have to be physical abuse; emotional abuse and deprivation also lead to structural changes in the brain. The consequences of these changes are often accompanied by a disruption of social behavior and later by anxiety and depression (Steininger, 2023).

In summary, traditional attachment theory emphasizes the role of early attachment experiences in emotional and social development (Bowlby, 2021). Neuroscientific findings support and extend this theory by showing that secure attachments positively influence the development of the prefrontal cortex, hippocampus and amygdala - essential brain regions for emotion regulation, stress management and social cognition (Strüber, 2016). The plasticity of the brain in early years illustrates that attachment experiences have long-term effects (Lindenberger & Wenger, 2016). Insecure attachments, on the other hand, lead to structural changes in these brain regions, which are associated with increased stress reactions and social

15 Source text: „Hospitalismusschäden“

difficulties (Dannlowski et al., 2012, pp. 289-280), as already described by Bowlby (1958, pp. 350-355). These negative effects can subsequently lead to attachment disorders, which are explained in more detail in the next section.

2.3 Attachment disorders

In social work, particularly in the field of childhood, youth and adolescence, there is an increasing number of behavioral abnormalities and disorders that can be traced back to complicated and inadequate attachment in early childhood (Johnson et al., 2022, p. 18). The discussion of these attachment disorders in the scientific literature is characterized by a remarkable diversity. This heterogeneity manifests itself both in the use of the term attachment disorder and in the various theoretical and practical approaches that have been developed to explain and treat these disorders (Von Klitzing, 2009, p. 14). As a result, there is no uniform definition of attachment disorders in the literature. While some researchers define attachment disorders as a condition characterized by specific dysfunctional patterns in the relationship between a child and his or her primary caregivers, others define it more broadly as a set of behaviors that indicate problems in early childhood emotional development (Von Klitzing, 2009, p. 14). These differences in definition are also reflected in various classification systems, e.g. the DSM (Diagnostic and Statistical Manual of Mental Disorders) and the ICD (International Classification of Diseases), which have each developed their own criteria and subcategories for attachment disorders (Von Klitzing, 2009, pp. 18-22).

The theoretical perspectives on attachment disorders are equally diverse. The attachment theory of Bowlby and Ainsworth, which sees attachment as a fundamental part of human development, forms an important basis, but there are also other approaches. For example, some psychoanalytic theories view attachment disorders in the context of intrapsychic conflicts, while cognitive-behavioral approaches emphasize the role of dysfunctional thoughts and behaviors (Brisch, 2015, pp. 94-98).

These diverse approaches reflect the complexity of the phenomenon as well as the different scientific, cultural and practical contexts in which it is researched and treated. In the further course, this work remains true to the pedagogical-psychological paradigm and focuses on the ontogenetic level.

Based on this perspective, the now overused term attachment disorder is a complex behavioral and developmental disorder that arises in early childhood and is characterized by, among other things, significant difficulties in forming and maintaining healthy emotional bonds with others (Asklepios, 2024). Another core characteristic is the impaired ability to regulate emotions. Attachment-disordered children may show extreme or inappropriate emotional reactions, ranging from strong outbursts of anger to a conspicuous lack of emotional response (Ziegenhain & Steiner, 2018, pp. 319-320). Conspicuous patterns in their attachment behavior are also abundant, e.g. unusual behaviors towards caregivers such as excessive clinging or aloofness (Zeanah et al., 2004, p. 879). In some cases, children with attachment disorders also exhibit developmental delays, e.g. in the areas of language or motor skills (Ziegenhain & Steiner, 2018, p. 323). In particular, the destructive behavioral abnormalities, including aggressive behavior, defiant reactions or self-harming behavior as emotional reactions (Trunk & Nowacki, 2021, p. 10), are considered challenging for the affected caregivers. Attachment disorders affect a correspondingly large group of people in terms of symptoms, ranging from infants to toddlers, schoolchildren and young adults (Asklepios, 2024).

In the further course of the research work, the various aspects of early attachment disorder, which develops within the first two years of life as a result of total deprivation and neglect, are specifically considered. In the following, attachment disorder is examined in general terms for a deeper understanding, and a distinction between early attachment disorder and attachment disorder is proposed in the following chapter. The early attachment disorder as the focus of this study is then described in more detail and leads to a description of the social-emotional handicap as a subtype according to Johnson (2014) and Klaes and Johnson (2016a, 2016b).

2.3.1 Causes and effects of attachment disorders

The traditional attachment theory according to John Bowlby and Mary Ainsworth forms the theoretical framework of this work for understanding attachment disorders, supplemented by current findings from the neurosciences.

Bowlby (1958) postulated that the quality of a child's early attachment experiences with their primary caregivers has a significant influence on their future emotional and social development - this assumption is supported by the neuroscientific explanations described above. From this perspective, attachment disorders can be divided into two paradigmatic principles: the epidemiologically oriented psychiatric current and the pedagogically oriented psychological current. This paper focuses on a pedagogical-psychological interpretation of attachment disorders, which Ziegenhain and Steiner (2018, p. 331) describe as the "disorders of childhood and adolescence that are the least well established empirically"[16].

Attachment disorders result from persistent neglect, abuse or repeated changes of caregivers in the first years of a child's life (Trunk & Nowacki, 2021, p. 12; Johnson et al., 2022, p. 3). Bowlby (1952, p. 370) coined the term "maternal deprivation"[17] for this phenomenon, which is caused by a lack of or inadequate provision of basic needs and resources (Fegert et al., 2023, p. 279):

- Physical deprivation refers to the lack of essential resources such as food, water, shelter and medical care, which can have serious health consequences (Fegert, Ziegenhain & Kindler, 2023, p. 279).
- Emotional deprivation is caused by a lack of affection, love and support with long-term consequences for social and emotional development (Fegert, Ziegenhain & Kindler, 2023, p. 281).
- Total deprivation: This most serious form of deprivation combines physical and emotional components and leads to profound neurological and cognitive impairments (Fegert, Ziegenhain & Kindler, 2023, p. 279).

In their study, Zeanah et al. (2003, p. 888) demonstrate that children's ability to develop secure attachment is significantly and lastingly impaired by emotional and

16 Source text: „Störungsbilder des Kindes- und Jugendalters, die empirisch am wenigsten gut abgesichert sind"

17 Source text: „Mutterentbehrung"

physical deprivation. The resulting consequences manifest in a wide range of behavioral patterns and developmental disorders. In addition to the unstable and inconsistent attachment and life patterns, as well as the general symptoms mentioned above, the following characteristics can also be observed:

- Phenomena of a lack of opportunities to make contact, e.g. hospitalization symptoms, stereotypies, death reflex (Eberwein, 2020; Johnson et al., 2022, p. 18; Wettig, 2008, p. 39)
- Frequent illnesses due to a weak immune system (Rass, 2016, p. 28)
- ADHD (Kißgen, 2023; Johnson et al., 2022, p. 5)
- Aggression, endangering others or oneself (Johnson et al., 2022; Ziegenhain & Steiner, 2018, p. 2)
- Pronounced escape and risk-taking behavior (Flemming et al., 2023; Johnson et al., 2022, p. 18)
- Increased anxiety, especially at night and in unfamiliar situations (Klaes & Johnson, 2016a, p. 92; Johnson et al., 2022, p. 18; Zeanah et al., 2003, p. 903)
- Regulatory disorders (Klaes & Johnson, 2016a, p. 100, Klaes, 2019; Rass, 2014, p. 28)

Long-term effects of attachment disorders can therefore be serious. Chronic stress in particular leads to far-reaching effects on brain development in early childhood (Johnson, 2025a). Infants and young children are not yet able to regulate their stress experience independently (Rass, 2014, p. 30, p. 74). They lack the interconnectedness of the brain structures, which means that cortisol is produced in stressful situations, but no independent neutralization by oxytocin and the body's own opioids takes place. For independent stress regulation behavior, i.e. the inhibition of the activated amygdala by oxytocin and endorphins, the middle limbic level needs the resonance and involvement of the upper limbic level, which, however, are only connected after many years of growth (Strüber, 2016, pp. 134-135).

Consequently, infants and children need help to regulate stress in the form of an attachment figure who takes over the functions of the upper limbic system on their

behalf (Strüber, 2016, pp. 134-135). Through their care and warm physical contact, the secure attachment figure ensures the development of many oxytocin receptors to regulate the activated stress hormones (cortisol), which will later enable children to regulate stress independently. However, if children are permanently exposed to insecure situations and have no adult and sensitive attachment figure to organize their stress, a high cortisol level remains, which can lead to damage to the nerve cells, dysregulation of the HPA axis and, as a result, to an impairment of exploratory behaviour (Seehagen et al., 2015, p. 12884; Strüber, 2016, p. 135). This lasting experience of stress and the resulting complicated, missing or frightening experiences are stored within the middle limbic system. If traumatic experiences predominate compared to loving and positive experiences, our brain builds a "fear structure"[18] into its architecture (Rass, 2014, p. 20), which ensures that these children suffer from a hyperactive alarm system due to an enlarged amygdala throughout their lives, as well as other structural and brain morphological changes (Cohen et al., 2013, p. 18274; Plener et al., 2017, p. 162). Continuous states of arousal resulting from chronic stress or abuse therefore pose a major threat to the neuronal network (Teicher, 2002). In addition to an enlarged amygdala, they lead to an overactivation of the HPA axis, which in turn excessively stimulates cortisol production. According to Klaes and Johnson (2016a, p. 103), if a considerable amount of oxytocin receptors is not developed by the organizing attachment figure in early childhood, the child will also have lasting difficulties regulating itself as an adult (Strüber, 2016, pp. 141-142). In early childhood, the high cortisol level leads to both serotonin and dopamine being blocked, which prevents the child from exploring from a secure attachment. It is preoccupied with one thing: survival. In other words, the brain and body are in a homeostatic imbalance, resulting in dysregulation of the endocrine and limbic systems and thus also of the emotions (Rass, 2014, pp. 22-23). This lack of homeostasis leads to a "social blind flight"[19] in children (Klaes & Johnson, 2016a, p. 100) and inhibits further

18 Source text: „Furchtstruktur"

19 Source text: „sozialer Blindflug"

individual learning development. In such stressful moments, the brain concentrates solely on surviving the state, which shuts down all other activities and developments (Tronick & Weinberg, 1997, p. 56). Rass (2014, p. 25) states that "the early networks already matured at birth are irreversibly shaped by the experiences gained"[20], which is logically accompanied by an unfavorable storage in the sense of the "fear structure"[21] (Rass, 2014, p. 20) formed by permanent stress experience. According to Rass (2014, pp. 24-25) and Schore (2003, p. 10), this is where the plasticity of the brain comes into play. The authors postulate that through adapted living environments and positive experiences in dealing with stress, a subsequent maturation of the right hemisphere of the brain can take place in the sense of a regulatory system. However, Nicole Strüber (2016, p. 53) points out that changes on this predominantly unconscious memory track require emotional means and a long-time perspective as a prerequisite. In particular, the project becomes even more complicated when attempts are made to make subsequent adjustments to the emotional basis. This is only possible "in patient interpersonal relationships"[22] (Strüber, 2016, p. 53).

2.3.2 Differentiation between early attachment disorder and attachment disorder

Helmut Johnson's research team, which includes the author of this paper, has systematically differentiated attachment disorders based on decades of intercultural practical research (Johnson et al., 2022, p. 19). This differentiation is primarily based on practical findings from working with children and adolescents in residential youth care who have experienced significant early childhood deprivation and neglect. The empirical findings in this area to date are limited (Ziegenhain & Steiner, 2018, p. 331), which is why this work aims to help describe the phenomenon in detail and discuss its long-term consequences.

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20 Source text: „die frühen bei Geburt schon ausgereiften Netzwerke durch die gesammelten Erfahrungen irreversibel geprägt sind"

21 Source text: „Furchtstruktur"

22 Source text: „in geduldigen zwischenmenschlichen Beziehungen"

The classification developed from practical observations distinguishes between two main groups of attachment disorders:

1. **Early childhood attachment disorder** caused by massive neglect and neglect within the first two years of life (total deprivation).
2. **Attachment disorder:** Develops as a result of emotional or physical neglect in or after the second year of life (partial deprivation).

Observations on early deprivation and its long-term consequences

Previous scientific studies on the significance of early and total deprivation are rare. One of the few comprehensive empirical studies in this area is the Bucharest Early Intervention Project (Nelson et al., 2023, pp. 1-12), which investigated the effects of institutional placement on the cognitive, emotional and social development of children over several decades. This showed that children who were exposed to persistent social and sensory deprivation in the first 18 months of life exhibited significant and persistent developmental problems even after stable care with adequate attachment opportunities (Nelson et al., 2014, pp. 34-40).

These findings are consistent with the observations made by our team around Johnson as part of their practical work with children and adolescents. Those affected who suffered from extreme deprivation in the first months of their lives often developed behavioral patterns characterized by high emotional dependency, low self-regulation skills and massive difficulties in social integration. The majority of these children and adolescents continued to show considerable adjustment problems even after intensive care measures and were barely able to cope with independent living without a constant caregiver.

Long-term behavioral patterns and social disintegration

Practical observations suggest that affected children and adolescents remain dependent on constant external stabilization in the further course of their lives. If this stabilization is lost - whether due to the loss of a caregiver, the end of a care measure or the transition to a less structured living environment - relapses into destructive and

earlier patterns of behavior become more frequent. This was particularly evident in the following problematic behaviors:

- excessive substance use (drugs, alcohol),
- financial instability and debt,
- unstable partnerships and unstable living situations,
- neglect of housing and living conditions,
- destructive behavior towards pets, including abuse or neglect, etc.

Central factors were therefore the necessary guidance from stable caregivers and a structured environment adapted to individual needs. As long as they were able to access these external stabilizers, those affected displayed adaptive behaviours. However, when these stabilizers were removed, a relapse into early acquired dysfunctional patterns manifested itself, which indicates that self-regulation skills were not sustainably internalized but merely maintained in a context-dependent (externally controlled) manner.

In contrast, children and adolescents who were only affected by deprivation in certain areas (e.g. physical care without emotional affection) or who experienced ambivalent attachments proved to be significantly more adaptable. With stable caregivers, they were usually able to develop strategies that enabled them to integrate into society to a large extent.

Symptomatic differentiation: early childhood attachment disorder vs. later attachment disorder

Practical experience has shown that the two groups of attachment disorders differ in their symptom patterns. This differentiation, which is based on long-term observations, is shown in Table 2.

Table 2: Symptoms of early childhood attachment disorder vs. later attachment disorder
Source: Own representation from practical observations (2014)

Early childhood attachment disorder	**Attachment disorder**

• Lack of reaction to environmental stimuli • High disease factor, weak immune system • Stereotypes due to hospitalization • Underweight due to difficult food intake • Developmental delays in speech and cleanliness education • Missing facial expressions • Limited body awareness • Limited sensation of pain • Signs of neglect, damage caused by lying • Lack of exploration, dull appearance • Increased anxiety, especially at night and in new situations • Lack of hygiene and even total neglect, often with a sour smell • Messy behavior	• Restlessness and nervousness • Distancing • Excessiveness • Lone wolf mode, no searching for the attachment figure • Aggression, outbursts of anger and destructive behavior • Developmentally delayed facial features, “baby face” • Day-night rhythm mostly present • Hygiene behavior possible due to structural requirements

Irreversibility of early childhood attachment disorders: A practice perspective

A central concept derived from practical experience is the hypothesis of the irreversibility of early childhood attachment disorders. Current neuroscientific theories emphasize the plasticity of the brain. Holmes and Slade (2019, pp. 318-319), Rass (2014, pp. 24-25) and Schore (2003, p. 45) argue that neuronal circuits can still be modified even after early experiences of deprivation and that the brain can learn from later experiences. The authors speak of a reshaping of existing neuronal structures, in which earlier experiences are not erased but reorganized by new patterns.

However, my practical observations show that affected children only achieve positive developmental progress if a highly structured environment with stable caregivers is permanently guaranteed. As soon as this support is removed, there is a significant relapse into previous behavioral patterns. Our observations are therefore diametrically opposed to the assumptions of plasticity research, as they indicate that

early childhood deprivation cannot be compensated for or internalized/reorganized by later positive experiences, but that permanent external stabilization is required to maintain functional adaptations.

The term "Junge Wilde" as a practical concept

As early as the mid-2000s, Johnson and Klaes coined the term "Junge Wilde" (German for "young wild ones") in seminars, specialist conferences and training courses to describe a specific group of affected individuals who exhibited massive social and emotional dysregulation despite extensive support (Johnson, 2019, p. 29; Klaes, 2019, p. 8). This term initially served as an informal concept in socio-educational practice before it was scientifically classified under the term social-emotional handicap from 2014 onwards (Klaes & Johnson, 2016a, pp. 90-105; Johnson, 2014; Johnson, 2019, pp. 29-33). This term is examined in detail below as the main subject of this paper.

2.3.3 The social-emotional handicap

Early childhood attachment disorder was first described by Johnson (2014) and Klaes and Johnson (2016a, p. 100) as a social-emotional handicap that occurs as an irreversible consequence of significant emotional and physical deprivation in the first 18 months of life. This disorder results from a lack of external regulation of the experience of stress, causing long-term and irreversible neurobiological changes that lead to persistent social, emotional and cognitive deficits (Klaes & Johnson, 2016a, p. 94-95).

The description and definition of early childhood attachment disorder according to Johnson (2014) and its expanded conceptualization by Klaes (2019) are presented below.

Symptoms of early childhood attachment disorder

According to Johnson (2014) and Klaes and Johnson (2016b, pp. 6-7), early childhood attachment disorder manifests itself through a variety of symptoms as a result of social and sensory deprivation in early childhood, which causes inadequate development of neuronal stress regulation:

- **Impaired body perception:** unclear sensations of pain, temperature and taste.
- **Restrained or rejecting social behavior:** Rejection or excessive avoidance of physical contact.
- **Exaggerated stress reactions:** Intense anxiety reactions or impulsive outbursts of aggression.
- **Unrealistic self-perception:** Highly inflated or downgraded self-assessment**.**
- **Low self-confidence:** Lack of self-confidence and strong dependence on external confirmation.
- **Cognitive limitations:** Learning and attention problems, frequent misdiagnoses such as ADHD.
- **Disturbed day-night rhythm:** sleep disorders, often in connection with anxiety.

Neuroscientific basics: effects on stress regulation

Johnson (2019, pp. 38-39) and Klaes and Johnson (2016a, pp. 94-95) argue that early lack of secure attachment leads to brain morphological changes that are not fully reversible. Neuronal regulation takes place via the interaction of the amygdala, the hippocampus and the prefrontal cortex. In affected children, there is a persistent overactivation of the amygdala, while the regulatory functions of the hippocampus are impaired by epigenetic mechanisms: An epigenetic blockade of gene expression for glucocorticoid receptors occurs (Klaes & Johnson, 2016, pp. 98-99). These epigenetic modifications influence the function of stress regulatory mechanisms without altering the underlying DNA sequence. These modifications are passed down through the generations so that affected children are already born with an increased vulnerability to social-emotional impairments. As a result of additional deprivation experienced, the physiological stress response remains active over a long period of time, resulting in a chronic state of overexcitement. These children are not only naturally more susceptible to chronic stress but are also systematically exposed to it - with the result that their stress regulation system remains permanently underdeveloped.

Consequences for social and professional participation

Johnson (2014) and Klaes and Johnson (2016a, p. 103) postulate that complete independence is not possible for those affected, as the neurophysiological foundations for emotion control and stress management have not been sufficiently developed as described above. According to Johnson (2014), those affected reach a maximum emotional developmental age of 10 years, for which, however, the establishment of a secure attachment figure for external stress regulation is a prerequisite. If this stabilizer is missing, this quickly leads to a complex overload and a relapse into old symptoms (Johnson, 2014).

The epigenetic mechanisms previously described by Klaes (2016, p. 99) complement this picture and lead to the conclusion that the resulting deficits in emotion and stress regulation are not to be understood as temporary developmental delays but represent a long-term and persistent disability. As a result of these limitations, the social interaction, emotional stability and social participation of those affected are significantly impaired (Johnson, 2019, p. 37; Klaes, 2016, pp. 91-92). According to Johnson (2019, p. 38), many of those affected are therefore unable to participate independently in social life, build and maintain relationships, complete normal vocational training or hold down a permanent job. As these impairments are due to fundamental neuronal development processes, they cannot be compensated for by therapeutic measures alone. Rather, these limitations need to be recognized as disabilities in the legal and socio-political sense (Klaes & Schmadel, 2019, p. 79-81), which involves adapting the entire living environment.

In the following, the concepts of mental disability and general disability are differentiated from one another to clarify the particular problems.

2.3.3.1 Mental illness versus disability

From the above perspective, people with a social-emotional handicap fall under the German definition of disability in accordance with Book IX of the German Social Code[23] (SGB IX). This arises from the fact that, due to irreversible impairments, they

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have difficulties organizing their own lives independently and participating fully in social life without outside help:

"(1) Persons with disabilities are persons who have physical, mental, intellectual or sensory impairments which, in interaction with attitudinal and environmental barriers, are very likely to prevent them from participating in society on an equal basis with others for more than six months. An impairment according to sentence 1 exists if the physical and health condition deviates from the condition typical for a person's age. People are at risk of disability if an impairment according to sentence 1 is to be expected"[24] (§2, paragraph 1 SGB IX).

In contrast, mental illnesses are defined as disorders of mental health that are characterized by changes in experience, behavior and thinking and can usually be treated medically (LVR-Klinik Viersen, 2025). Examples include depression, anxiety disorders and schizophrenia. A disability within the meaning of Section 2, Paragraph 1, Sentence 1 SGB IX, on the other hand, exists if there is a long-term impairment that significantly restricts social participation.

The key difference between a mental illness and a disability therefore lies not only in its cause, but also in its long-term effect and how it is dealt with. While an illness, according to First (2024), is often treatable and a cure or freedom from symptoms is sought, a disability primarily requires the reduction of social barriers and the provision of supportive measures for the person affected. This differentiation is also supported by Wurm and Wurm (2018), who describe an illness as a situation "when there is a need for treatment, e.g. to eliminate or alleviate pain, to maintain or restore

24 Source text: „(1) Menschen mit Behinderungen sind Menschen, die körperliche, seelische, geistige oder Sinnesbeeinträchtigungen haben, die sie in Wechselwirkung mit einstellungs- und umweltbedingten Barrieren an der gleichberechtigten Teilhabe an der Gesellschaft mit hoher Wahrscheinlichkeit länger als sechs Monate hindern können. Eine Beeinträchtigung nach Satz 1 liegt vor, wenn der Körper- und Gesundheitszustand von dem für das Lebensalter typischen Zustand abweicht. Menschen sind von Behinderung bedroht, wenn eine Beeinträchtigung nach Satz 1 zu erwarten ist" (§2, Absatz 1 SGB IX).

the ability to work or to influence future earning capacity"[25]. Disability, on the other hand, is defined as a "permanent and serious impairment of a person's social [...] and economic participation"[26] (Wurm & Wurm, 2018) and thus as the negative consequences of an illness, particularly in terms of participation in school, work and social life. It follows that a disability is not an illness, but an illness can turn into a disability.

Against this background, it can be deduced from the legal definition of disability that the characteristics and symptoms of an early attachment disorder are not to be classified as an illness, but rather as a disability. The social-emotional handicap therefore does not correspond to the concept of illness but falls into the area of disability.

2.3.3.2 Current challenges and prospects for disability

The principle of self-determination and personal responsibility occupies a prominent position in the current educational and political debate (Meyer, 2021). However, as goal-oriented concepts in disability education, they must be viewed critically. Self-determination, defined as the ability to control one's own destiny, is of particular importance to people with disabilities. Self-determination, according to the National Association of Special Education Teachers (2008), includes other skills such as decision making, problem solving, goal setting and self-regulation. According to this definition, goal orientation towards self-determination and self-responsibility can be problematic, especially if it is applied without consideration of individual abilities and needs (Prang, 2024, pp. 185-186), e.g. in the case of a lack of self-regulation due to experiences of deprivation in early childhood.

Self-determination is on a continuum and varies depending on the individual. A critical examination of this construct requires the recognition that self-determination

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25 Source text: „wenn Behandlungsbedürftigkeit besteht, um z. B. Schmerzen zu beheben, zu lindern, die Arbeitsfähigkeit zu erhalten oder wiederherzustellen oder die zukünftige Erwerbsfähigkeit zu beeinflussen."

26 Source text: „dauerhafte und gravierende Beeinträchtigung der gesellschaftlichen […] und wirtschaftlichen Teilhabe bzw. Teilnahme einer Person"

cannot be seen as an absolutely achievable ideal, but rather as a dynamic process that requires support and ongoing adaptive measures for particular circumstances (Klaes & Johnson, 2016a, p. 92). Furthermore, it is important to recognize the risks of overemphasizing self-determination, such as the danger of neglecting necessary support or promoting excessive individualism that overlooks the social and structural aspects of disability (Waldschmidt, 2021). It is imperative to understand self-determination as part of a complex system that considers individual as well as social and emotional factors and provides well-designed support that considers the individual abilities and needs of people with disabilities. Despite these findings, current pedagogy shows an insufficient implementation of these principles, as it rarely fully considers the specific needs and abilities of people with disabilities, preferring the idealized goal of self-determination (J. Johnson, 2025b).

2.4 Research question

The central aim of this work is to go beyond previous assumptions and findings to create an awareness of the causes and the associated serious and long-term effects of early childhood deprivation to design possible perspectives for action within the framework of educational and psychological fields of work. These measures are to be developed independently of psychiatric interventions and consciously set themselves apart from the current psychotherapy mainstream to promote alternative, integrative approaches. In particular, the assumption underlying this work of social-emotional disability as a consequence of early deprivation according to Klaes and Johnson (2016a) and Johnson (2014) represents a modern and contemporary approach that is diametrically opposed to the approaches of self-determination and self-responsibility that have been publicly advocated to date. In response to the increasing prevalence rates of children and young people with mental disabilities reported to the Federal Statistical Office (2021) and the resulting helplessness regarding inappropriate care options within the social support sector, this thesis poses the exploratory research question:

What procedures are necessary to ensure that people affected by a social-emotional handicap can participate in social life to the best of their individual abilities?

The research question is to be answered with the help of the following working hypotheses:

H1: What information is relevant for the process of analyzing the social-emotional handicap of the persons concerned as a basis for action strategies?

H2: Which target definitions are based on the personal resources of the individuals?

H2a: The earlier and more pronounced the experience of deprivation, the more limited the possibility of emotional development

H2b: The earlier and more pronounced the experience of deprivation, the greater and more necessary the need for long-term help with the overall organization of everyday life

H3: Which care framework is relevant for this opportunity for participation based on the objectives identified?

This research primarily pursues an explorative approach that focuses on the analysis of theoretical correlations and empirically supported contextual factors. Due to the innovative and yet under-researched assumptions of this study, only limited empirical findings exist, which is why purely statistical hypotheses are not formulated. The successive research questions reflect the explorative nature of the study and serve to systematically determine relevant information for a well-founded analysis of attachment disorders and possible forms of behavior.

Conclusions and Recommendations from Chapter 2

In the 1950s, John Bowlby revolutionized developmental psychology with his attachment theory by postulating the long-term importance of early childhood attachments for psychological development. In particular, he pointed out the negative effects of separation from primary caregivers, which was confirmed by his work for

the WHO (Bowlby, 1952, p. 6; 2001, p. 7). Together with Mary Ainsworth, he expanded the theory to include empirical findings, in particular through the FST, which was used to identify various attachment patterns (Ainsworth et al., 2015, p. 358).

Attachment theory assumes that close emotional relationships are a lifelong basic need (Bowlby, 2021, p. 98). Ainsworth expanded the theory with the concept of the attachment figure's sensitivity, which influences the quality of the attachment (Ainsworth et al., 2015, p. 358). A secure attachment is characterized by emotional constancy, sensitivity and maternal care and promotes positive psychosocial development (Johnson et al., 2022, p. 3). Attachment theory was supplemented by further research, particularly the work of Mary Main and Judith Solomon, who described the attachment style of disorganized attachment (cited in Duschinsky, 2015, pp. 32-35). Later research by Hazan and Shaver (1987), Bartholomew (1990) and Grossmann and Grossmann (2014), extended the understanding of attachment patterns to the realm of romantic relationships and across the lifespan.

Long-term studies by Grossmann and Grossmann (2014) show that early childhood attachment experiences act as predictors for the quality of later interpersonal relationships. Secure attachment in early childhood is associated with more stable relationships in adulthood, while insecure attachment patterns often persist (Grossmann & Grossmann, 2014, pp. 69-72). At the same time, their studies pointed to differences in cultural contexts.

Insecure attachment and experienced deprivation lead to attachment disorders, which are already associated with symptoms such as ADHD, language deficits and social dysregulation in childhood (Johnson et al., 2022, p. 4-5). In the long term, insecure attachment affects self-perception, stress and emotion regulation and behavioral control, which leads to various emotional and social impairments and symptoms in adulthood (Klaes & Johnson, 2016a, p. 100). Neuroscientific studies show that insecure attachment and the resulting chronic stress experience cause permanent stress activation, which leads to increased cortisol levels and dysregulation of the stress system (Gunnar and Quevedo, 2007, pp. 154-156). These mechanisms have significant effects on structural and functional brain development and can result

in health impairments (Charmandari et al., 2005; p. 267; Sapolsky et al., 2000, p. 72; Whitworth et al., 2005, pp. 291-293).

Research on neuronal plasticity shows that early attachment experiences cause both psychological and structural changes in the brain (Lindenberger & Wenger, 2016). Holmes and Slade (2019, pp. 318-319), Rass (2014, p. 24) and Schore (2003, p. 45) argue that neuronal circuits can be modified even after early childhood deprivation, whereby they postulate a reshaping of existing neuronal structures. This means that earlier experiences are not completely erased but can be overlaid and reorganized by later experiences. However, practical observations by Johnson's research team indicate that children who have experienced severe deprivation remain dependent on ongoing external stabilization later in life; without it, they tend to regress into earlier behavioral patterns. This contradicts current plasticity assumptions and implies that early childhood deprivation cannot be fully compensated for (Johnson, 2014; 2019, p. 38). Klaes, Johnson and the author therefore assume that the social-emotional handicap as an early attachment disorder falls under the term disability.

Current disability education increasingly emphasizes the importance of self-determination and personal responsibility, but this must be critically questioned. Self-determination runs along a continuum and varies from person to person (Prang, 2024, pp. 185-186). People with chronic early childhood deprivation experiences often have limited self-regulation skills, which means that lifelong support and adaptive measures are required, making self-determination a questionable goal option. Waldschmidt (2021) also points out the danger of overemphasizing self-determination, as this can neglect the support needs and structural barriers of people with disabilities. Rather than adhering rigidly to the principle of self-determination, support should be individualized and context-sensitive, taking into account the specific needs and capacities of those affected.

This research uses an exploratory approach to gain new insights into the long-term impact of early childhood deprivation, as empirical findings on this specific topic are limited.

A central aim of the study is to answer the question of what procedures are necessary to enable people affected by a social-emotional handicap to participate in social life to the best of their individual abilities. This question is to be answered both qualitatively and quantitatively with the help of derived working hypotheses.

The next chapter is dedicated to the methodological approach of this study.

3. CHAPTER III. MIXED METHODS DESIGN FOR THE COMBINATION OF QUALITATIVE AND QUANTITATIVE ANALYSIS OF A SINGLE CASE

"Research is far too serious and difficult a matter to allow oneself to confuse scientificity with rigidity, which is the opposite of wisdom and creative thinking. Forbidden forbidden, I would prefer to say, or: beware of methodological watchdogs"[27] (Bourdieu & Wacquant, 1996, p. 261).

Following this guiding principle - and in light of the need to investigate a complex and previously under-researched field - this dissertation employs a qualitative research design embedded within a mixed methods framework (MMR), with a clear emphasis on qualitative methodology (Schreier & Odağ, 2020, p. 12). Quantitative procedures are used supplementarily, supporting the analysis of the open-ended research topic. This methodological integration enables the combination of the contextual depth and nuance of qualitative data with the objectivity and generalizability of quantitative findings, thereby contributing to a comprehensive understanding of the research subject (Creswell & Plano Clark, 2017, p. 10).

The exploratory research question is derived from a contemporary theoretical model that has yet to be empirically validated. This theory was explored through a detailed single-case analysis of a young adult. According to Yin (2018, Ch. 1), the case study method allows for a detailed, subject-centered, and reconstructive examination of a specific case within its natural context. By incorporating various influencing factors, this approach provides a holistic perspective that helps illuminate both the individual case and its broader implications (Yin, 2018, Ch. 5, Section *Analyzing Case Study Evidence*).

Such a qualitatively oriented study aims to identify and describe the underlying factors, processes, and mechanisms that shape the phenomenon under investigation -

27 Source text: „Die Forschung ist eine viel zu ernste und schwierige Angelegenheit, als dass man sich erlauben könnte, Wissenschaftlichkeit mit Rigidität zu verwechseln, die das Gegenteil von Klugheit und kreativem Denken ist. Verbieten verboten, würde ich am liebsten sagen, oder: man hüte sich vor methodologischen Wachhunden"

an objective that is already reflected in the title of this research project (Yin, 2018, Ch. 2, Section *Defining the Case*). The study also aims to advance theoretical development by providing empirical evidence and practical examples of application in real-world contexts.

A defining feature of the individual case examined in this study - represented by Manuel - is the extended investigation period, which encompasses 17 chronologically ordered documents spanning 12 years of developmental history. This clearly positions the analysis within the domain of longitudinal research. Such studies aim to examine processes of change, transformation, or development by means of continuous observation and analysis over extended periods of time (Witzel, 2010, p. 291). In contrast to cross-sectional designs, which provide only snapshots based on single-point data collection, a longitudinal approach enables researchers to gather multi-layered data from the same entities - whether individuals, organizations, or social structures - at different time points. This opens the door to detailed insights into developmental trajectories, social change dynamics, and the persistence or transformation of attitudes and behavioral patterns (Witzel, 2010, pp. 294-295). In line with this, Kromrey (2009, p. 504) notes that particularly significant cases should be observed, described, and analyzed as comprehensively as possible and typically over longer periods of time. Within longitudinal designs, single case studies are especially common, as they allow for in-depth and long-term exploration of individual cases. This methodological strategy enables the detailed recording and analysis of developmental processes and change patterns, which, in turn, supports deep understanding of complex phenomena and robust theory building (Döring, 2022, p. 216). The methodological framework of this case study - including both the data collection and evaluation instruments - is designed to answer the qualitatively formulated research question through the working hypotheses H1, H2, and H3. In parallel, the hypotheses H2a and H2b, which are derived from qualitative questions but formulated quantitatively, are examined using standardized quantitative instruments. This combination is intended to supplement the qualitative findings and, in accordance with Creswell and Poth (2017, p. 244), contribute to a comprehensive response to the research question.

At the core of the qualitative methodology applied in this study lies the use of qualitative content analysis, as outlined by Kuckartz (2020, p. 39). This method enables a systematic and rule-based evaluation of textual material in order to identify and interpret patterns, themes, and categories. For this purpose, the analysis draws upon documentation from care planning meetings, school reports, and a specialist medical certificate.

To broaden the methodological perspective and provide a comprehensive view, a guided expert interview - following Helfferich's (2011) approach - is also conducted. This interview aims to gain insights into the origins, conceptual foundations, and theoretical assumptions directly from the person who played a key role in developing the theory examined in this study. The transcribed interview is also subjected to qualitative content analysis using the same method (Kuckartz, 2020).

As an additional instrument, a genogram, based on Hildenbrand's model (2024, p. 17), is employed to visualize family relationships, recurring patterns, and significant life events within the context of this case study. The aim is to shed light on the influence of these factors on the research topic. This methodological extension, which introduces a sociological lens, not only enhances the validity of the findings, but also enriches the academic discourse by incorporating an interdisciplinary perspective that provides innovative impulses for understanding the case at hand.

To complement the qualitative methods and address the hypotheses H1, H2, H2a, and H2b, several quantitative instruments are also utilized. These include:

- The Bochum Attachment Questionnaire (*Bochumer Bindungsbogen, BoBi*) by Neumann et al. (2007), used to assess Manuel's attachment quality;
- The Emotion-Specific Self-Assessment Questionnaire (*Fragebogen zur emotionsspezifischen Selbsteinschätzung emotionaler Kompetenzen, SEK-ES*) by Ebert et al. (2014), which evaluates self-perceived emotional competence;

- The Questionnaire on Social Behavior in Social Situations (*Fragebogen zum Verhalten in sozialen Situationen, SMSC*) by Collani et al. (2009), which measures social behavior quantitatively.

These instruments contribute to the study by generating standardized and comparable data, which help to verify, complement, and triangulate the findings derived from the qualitative analyses.

In the following section, the central case subject - the young adult referred to as Manuel - will be introduced in detail, including a discussion of the selection criteria. Additionally, the data collection instruments used in the study will be examined in depth. The chapter concludes with a summary and a preview of the subsequent chapter's content.

3.1 Presentation of the individual case

Case studies, and by extension individual case studies, do not refer to specific techniques of data collection or analysis. Rather, they constitute a comprehensive research approach defined by the detailed investigation of a specific case or a small number of cases. These cases function as the primary units of analysis within a study and may involve individual social entities such as persons, groups, or organizations (Döring, 2022, p. 216). Within the context of this dissertation, the individual **Manuel** serves as the central unit of investigation.

What distinguishes individual case studies is their interpretative and holistic orientation, which enables the development of rich and in-depth insights into the subject under examination (Lamnek & Krell, 2010, pp. 285-286). Through this approach, behavioral and interaction patterns within the case are identified, from which more generalizable patterns may be inferred - patterns that are assumed to hold relevance beyond the specific case itself. In light of this, the present study intentionally adopts the individual case study as its core methodological framework. This allows the researcher to explore the complex and nuanced dimensions of the research phenomenon with the depth and precision required - not only to empirically test the

stated hypotheses, but also to contribute to the theoretical understanding of the phenomenon and to derive practical implications.

3.1.1 Personal description of Manuel, the author's personal relationship and the current situation

The following section presents a descriptive overview of Manuel, the central subject of this case study, primarily in tabular format (Table 3). More detailed aspects of his personal development, family-related characteristics, and a deeper character analysis are provided in the empirical section (Chapter 4) and are further examined in the presentation of results.

Table 3: Personal profile - Manuel
Source: own compilation

Category	**Description**
Size and stature	Manuel is approximately 170 cm tall and weighs 60 kg, which classifies him as very slim.
Appearance	He has black-dyed, unkempt hair and an untrimmed beard.
Clothing	His wardrobe mainly consists of black, loose-fitting clothing, such as jogging pants, pullovers, or T-shirts.
Interests	His interests are limited, with a clear preference for television, series, and video games.
Social behavior	Although generally withdrawn, Manuel is open to activities with people he trusts and is overall sociable. Despite appearing independent, he harbors a deep fear of the unknown and is easily overwhelmed - especially in everyday scenarios such as medical appointments. He tends to be cautious and anxious.
Addictive behavior	Manuel exhibits signs of alcoholism and smokes an above-average number of cigarettes
Body awareness and hygiene	He demonstrates low body awareness and poor hygiene habits, often resulting in strong body odor and neglected dental care.
Communication style	While occasionally verbally challenging, Manuel is usually polite and friendly and knows how to conduct himself appropriately.
Degree of disability	In accordance with §§2 and 152 SGB IX, Manuel is officially recognized as having a disability with a 60% degree, attributed to low cognitive ability and a behavioral disorder.
School education	2005-2012 *Schule auf der Wild*, Special Educational Support Center of the Merzig-Wadern District 2012-2015 *Kindelsberg-Lachsbach*, Special School Network June 2015 Completion of 10th grade (final certificate)
Vocational education	2015-2016 EQJ (*Einstiegsqualifizierung Jugendliche* - entry level qualification for young people), Lagano GmbH, Hilchenbach

Category	Description
	2016-2019 Vocational college of the Märkischer Kreis in Iserlohn, Department of Agriculture and Horticulture May 2019 Graduation: Worker in horticulture specializing in gardening and landscaping

The author's interest in Manuel's wellbeing is grounded in a long-standing personal connection that spans over a decade. Over the years, she has been closely involved in his care, which has provided her with a deep understanding of his life circumstances, challenges, and emotional world. This long-term relationship, shaped by shared experiences and continuous engagement, has fostered a sense of personal responsibility and empathy. At the time of writing, this concern is amplified by Manuel's recent diagnosis of testicular cancer - a serious medical condition that poses a substantial emotional and psychological burden, not only for Manuel himself but also for those close to him. In this challenging phase, the author remains committed to offering support and being a reliable part of Manuel's care network. Despite the close personal connection, the author ensures that the neutrality and objectivity of the research are safeguarded by methodological triangulation, the inclusion of expert perspectives, and the application of standardized data evaluation techniques.

3.1.2 Selection criteria for the individual case

According to Yin (2018), the criteria for selecting a case in a single case study are complex and designed to maximize the depth and significance of the study. Central to this is the *relevance* of the case to the research question - it should contribute directly to answering it and provide valuable insights that expand the understanding of the phenomenon under investigation (Yin, 2018, Chapter 2, Section *Defining and Bounding the Case* section).

The *accessibility* of the case is also a decisive factor. This includes not only physical or geographical accessibility, but also the availability of relevant data and the willingness of the people involved to participate in the study (Yin, 2018, Chapter 2, Section *Selection of Pilot Cases*). A readily accessible case enables sound data

collection and ensures that reliable and complete information can be gathered (Yin, 2018, Chapter 3, Section *Screening the Candidate Cases for Your Case Study*).

Another key selection criterion is the case's *potential* to generate learning value. This means that the case should offer new, previously unknown insights or serve to challenge or support existing theories and assumptions. Single case studies are particularly valuable when they allow for insights that extend beyond the specific circumstances of the individual case and contribute to the broader body of knowledge (Flyvbjerg, 2006, p. 227). Such cases may, for instance, confirm or expand existing theories and thereby support the further development of scientific concepts (Yin, 2018, Chapter 2, Section *Using Theory to Generalize from Case Studies*).

When it comes to the *characteristics* of the case itself, researchers often select cases that, due to their typical features, are considered representative of a broader phenomenon. Likewise, critical cases may be chosen because their specific circumstances warrant in-depth investigation. Unique or exceptional cases provide an opportunity to examine rare or previously unexplored phenomena, while revelatory cases allow for deep insights into complex processes or relationships. Finally, cases involving extreme or rare conditions offer a chance to test the boundaries of existing theories and to generate new perspectives (Yin, 2018, Chapter 2, Section *Defining the Case and Establishing the Logic of Your Case Study*).

Criteria related to the individual case of Manuel

Manuel meets all of the criteria outlined above. First, he represents a case that, while now common in practical settings, remains empirically underexplored: a young person who experienced early neglect due to severe domestic difficulties and was subsequently placed in long-term state care. His developmental trajectory is therefore directly relevant to the research question.

Another decisive factor in selecting this case was the researcher's direct access to Manuel himself as well as to an extensive collection of carefully documented records spanning several decades, including photographs and school reports as artifacts. This means the criterion of accessibility was fully met.

Finally, the case offers significant potential due to the availability of detailed longitudinal data and developmental reports. These materials provide an opportunity for meaningful knowledge gain that could help refine and specify the theoretical foundations underlying this study.

3.1.3 Data protection and informed consent as ethical foundations

In qualitative research, interaction with participants plays a central role, making the protection of sensitive data and adherence to ethical principles essential (*Datenschutzrecht*, 2025). Informed consent ensures that participants are fully informed about the purpose of the study, the use of data, and potential risks, enabling them to voluntarily and knowledgeably agree to participate (Creswell & Poth, 2017, p. 178). Data protection safeguards participants' confidentiality and privacy through clear regulations and anonymization, which fosters trust and contributes to the quality of the research results (*Datenschutz in Der Forschung*, 2024).

In the present study, all participants (Manuel and the interview partner) were thoroughly informed in advance about the purpose of the research (see https://www.institut-johnson.de/jana/datenschutz-m.pdf and https://www.institut-johnson.de/jana/ewk.pdf). Written declarations of consent were obtained from all participants. Manuel, as the central subject of investigation, was additionally anonymized in the research documentation to ensure that his identity could not be inferred. All collected data were stored securely, accessible only to the author, and used exclusively for research purposes. In accordance with current data protection regulations, the data will be permanently deleted six months after submission of the thesis.

3.2 Survey instruments

The following section provides a detailed description of the qualitative and quantitative instruments used in this study.

3.2.1 Document analysis

Document analysis is a widely used method in qualitative research, particularly in single case studies, as it allows for a comprehensive understanding of the subject

under investigation. By systematically examining relevant materials - such as letters, emails, official records, and medical documentation - researchers can gain deep insights into the participant's life circumstances, historical context, and individual experiences (Bowen, 2009, p. 29). This method also enables the identification of latent structures and recurring patterns that may remain hidden in interviews or direct observation (Bowen, 2009, p. 32). As document data are non-reactive - that is, not influenced by the data collection process - they enhance both objectivity and reliability (Bowen, 2009, p. 31). As a methodological tool, document analysis makes a vital contribution to triangulation by integrating multiple data sources, thereby strengthening the validity of the research findings (Bowen, 2009, p. 28).

3.2.2 Guided interview

The guided interview is a well-established method in qualitative social research. It enables researchers to explore social realities in a nuanced way and to access participants' subjective experiences (Helfferich, 2011, pp. 21-26). This method is characterized by a structured yet flexible interview guide that offers a thematic framework while preserving the natural flow of conversation (Helfferich, 2011, p. 35). The balance between structure and openness makes it possible to elicit focused information while also uncovering unexpected topics. For this reason, guided interviews are particularly valuable in exploratory research.

In this study, the guided interview was selected as a data collection method to gain a differentiated and in-depth understanding of the research subject. The interview guide was developed according to Helfferich's (2011) SPSS method, which comprises four essential steps: collecting, examining, sorting, and subsuming (Helfferich, 2011, pp. 182-185). This methodological process ensured that the guide was both theoretically grounded and practically applicable, thereby ensuring high data quality.

Before its use in the actual interview, the guide was pre-tested with an independent participant to evaluate its clarity and feasibility. The positive evaluation from this preparatory step allowed the guide to be used without modifications in the final interview.

The guide included the following thematic questions:

1. From your perspective, how has the understanding and conceptualization of social-emotional handicaps evolved over time? Where do we stand today?
2. Based on your experience, what specific aspects are critical in the diagnosis and treatment of social-emotional handicaps, and how do these differ from related phenomena? Which of these distinctions do you consider essential for designing effective support measures?
3. Which interventions or support strategies do you regard as most effective in enabling individuals with social-emotional handicaps to participate in social life?
4. Where do you see the most significant gaps in current research and practice concerning social-emotional handicaps, and what future developments do you consider necessary and promising?

3.2.2.1 The interview partner

Winfried Klaes, a graduate psychologist, systemic family therapist, supervisor (Berufsverband Deutscher Psychologinnen und Psychologen e.V. (BDP) - Professional Association of German Psychologists), and founder of ifkp-KLAESwagner (Klaes & Wagner, n.d.), is known for his pioneering work in the field of constructive psychology. In 1988, he co-founded the Institute for Constructive Psychology (ifkp) alongside Dr. Dieter Ferring and Mattias Prinz and played a key role in the development and dissemination of the systemic solution-focused approach.

Klaes has been particularly committed to applying systemic principles beyond therapeutic contexts, especially in socio-educational fields such as youth welfare, integration support, and elderly care. His institute became widely known for offering a variety of advanced training programs, most notably the successful “Systemic Counselling” certification series.

After a creative hiatus, Klaes resumed his work at ifkp in 2018 under the new name ifkp-KLAES, shifting its focus toward the evolving needs of the social sector and

the challenge of developing practical concepts for new client groups - especially those affected by the *social-emotional handicap*. Under his leadership, ifkp-KLAES entered strategic partnerships and expanded its services to address a broad range of topics, including severe dysregulation of the stress system.

Klaes' work is driven by a vision of building a network of systemic practitioners and supporting institutions in their professional development. This vision culminated in the founding of the Society for Neuro-Systemic Research and Practice in 2022. Together with Helmut Johnson, Klaes co-developed the theory of the "young wild ones", also referred to as the "social-emotional handicap" (Johnson, 2014; Klaes & Johnson, 2016a).

3.2.3 The genogram according to Bruno Hildenbrand

The genogram is a well-established graphic tool used in clinical sociology, psychology, and systemic therapy to analyze family structures, historical events, and intergenerational behavior patterns (Kühling & Richter, 2009, p. 228). Unlike a traditional family tree, it integrates emotional, social, and health-related dynamics, enabling a more nuanced exploration of transgenerational influences (Kühling & Richter, 2009, p. 229).

Through its holistic perspective, the genogram functions as both a diagnostic and therapeutic tool, facilitating the identification of recurring relational patterns and attachment styles, as well as the analysis of psychosocial burdens and intergenerational challenges (Kühling & Richter, 2009, p. 239). It thus provides valuable insights into individual and collective biographical trajectories across generations.

Bruno Hildenbrand (2024, Ch. 1) expands the traditional use of genograms in clinical sociology by defining the nuclear family as the primary unit of analysis and introducing a sequential method for examining family structures. This approach combines objective historical data with the reconstruction of crisis management processes, allowing for a precise understanding of how family dynamics evolve and affect individual development (Hildenbrand, 2024, Ch. 1, *Sequence Analysis as a Method for Reconstructing Crises and Coping*).

Particularly noteworthy is Hildenbrand's conceptualization of illness as a coping strategy in times of family crisis, which helps uncover underlying adaptation mechanisms and resilience processes (Hildenbrand, 2024, Ch. 5, *The Practice of Genogram Work*). In addition, he explores the intergenerational transmission of attachment patterns by analyzing family structures and life narratives (Hildenbrand, 2024, Ch. 3). Identifying recurring behavioral and relational patterns makes it possible to reconstruct deeply rooted transgenerational dynamics. His methodological refinements and focus on individual agency have significantly advanced genogram work.

In this study, Hildenbrand's approach complements the overall methodological framework, providing a precise means of capturing complex family dynamics relevant to the research context. For data protection reasons, no visual representation of the genogram is included; however, the interpretative analysis based on it serves as a foundation for the discussion of results in the respective chapter.

3.2.4 The Bochum attachment questionnaire

The Bochum Attachment Questionnaire (BoBi), a German adaptation of the "Experiences in Close Relationships Scale" (ECR) developed by Brennan, Clark, and Shaver (1998), was translated and validated by Neumann et al. (2007). It is designed to assess the quality of attachment in adult romantic relationships. Based on the theoretical assumption that attachment patterns formed in early childhood tend to remain relatively stable over time, and that early insecure attachment experiences correlate with ongoing insecurity in both romantic and social contexts (Grossmann & Grossmann, 2014, pp. 69-72), the BoBi allows for cautious inferences regarding these early patterns based on adult relational behavior.

The questionnaire measures attachment along two core dimensions: Attachment-Related Anxiety and Attachment-Related Avoidance. Importantly, it can be administered irrespective of the respondent's current relationship status and is suitable for adult participants of all age groups. The instructions emphasize that responses

should reflect general experiences in intimate relationships, rather than the current state of any specific partnership.

The instrument comprises 36 items, equally divided between the two scales. Responses are given on a 7-point Likert scale ranging from “not at all true” to “completely true.” Certain items (items 3, 15, 19, 22, 25, 27, 29, 31, 33, and 35) require reverse coding. Odd-numbered items contribute to the Avoidance scale, while even-numbered items form the Anxiety scale.

Scoring involves calculating the mean values of both scales. Higher scores suggest an insecure attachment style, whereas lower scores indicate secure attachment tendencies.

The BoBi demonstrates high reliability, with Cronbach’s alpha ranging between $\alpha = .81$ and .91. The two dimensions - anxiety and avoidance - show only a low intercorrelation ($r = .12$), supporting the construct validity of the instrument.

In the context of this study, the BoBi was administered to assess Manuel’s attachment characteristics, with the aim of drawing cautious interpretative conclusions about both his early attachment experiences and his relational behavior in adult partnerships. These findings contribute directly to the interpretation of the working hypotheses H1 and H2, including the sub-hypotheses H2a and H2b.

3.2.5 The questionnaire for emotion-specific self-assessment of emotional competencies

The SEK-ES is a questionnaire developed by Ebert et al. (2014) that captures the various facets of a person’s emotional competence. This construct encompasses an individual’s ability to manage both their own emotions and those of others, including core aspects such as emotional perception, awareness of emotional states, appropriate emotional expression, and the effective regulation of emotional responses. These skills are considered essential for interpersonal relationships and psychological stability.

The administration of the SEK-ES begins with clear instructions for participants to respond based on their general experiences and habitual patterns in dealing with the emotions in question - regardless of current moods or specific situations.

The questionnaire is divided into two parts:

- Part A: Feelings and Moods: This section assesses the emotional state of the respondent over the previous week using 50 items, rated on a five-point Likert scale ranging from “never” to “always.”
- Part B: Coping with Feelings and Moods: This section measures emotion-specific regulation competencies. For each affective reaction, participants respond to 12 items using a five-point Likert scale (“not at all” to “always”). Additionally, each emotion is accompanied by a global item measuring the maximum intensity experienced during the last week, rated on an eleven-point Likert scale from “not at all” to “very strongly” (e.g., “How intense was the strongest depressed mood you experienced during the past week?”).

The affective states assessed include: Stress/tension, anxiety, anger, sadness, depressive mood, two additional stress-related emotions, and positive emotions. The results allow for a differentiated profile of emotional competencies by identifying both individual strengths and potential areas for growth.

The SEK-ES demonstrates good psychometric properties: internal consistency (Cronbach’s alpha) ranges from .67 to .97, test-retest reliability lies between .41 and .70. Validity is supported by the scale’s theoretical construction, factorial analyses, and correlations with related constructs.

In the present study, the SEK-ES is employed to examine potential discrepancies between Manuel’s self-perception and external assessments, as well as to identify developmental gaps in emotional maturity relative to his chronological age. Moreover, the results provide implicit indicators of his capacity for stress regulation, thereby highlighting possible areas of support needs in daily functioning. The descriptive

results obtained from this instrument contribute to the empirical evaluation of hypotheses H1, H2, H2a, and H2b.

3.2.6 The questionnaire on behavior in social situations

The SMSC is a standardized diagnostic tool designed to capture the complexity of human behavior and attitudes in social contexts. It is based on the original version developed by Mark Snyder (1974) and was adapted for the German-speaking context by Stürmer and Collani (2009). The conceptual foundation of the SMSC lies in the assumption that individuals adapt their behavior, outward appearance, and speech in social situations to varying degrees - consciously or unconsciously - in response to prevailing social norms and external expectations.

The 35 items of the SMSC are grouped into four overarching dimensions, each targeting a distinct facet of social interaction and self-presentation:

1. Self-Presentation in Front of an Audience: This dimension assesses how individuals present themselves in public or social settings. It captures the degree to which someone consciously adjusts their appearance, behavior, and communication to create a desired impression. Items: 1-, 3, 4, 6, 9, 10, 12, 14-, 17, 25-, 33

2. Orientation Toward Others: This scale reflects the extent to which a person aligns their attitudes and behavior with the opinions, behaviors, and expectations of others. It measures conformity to group norms and values. Items: 2-, 5, 7-, 11-, 13, 18, 19-, 21, 24-

3. Sensitivity to Expressive Behavior and Social Cues: This dimension evaluates how attuned an individual is to non-verbal signals, emotional expressions, and subtle environmental cues. It includes the ability to accurately perceive and interpret social dynamics and respond appropriately. Items: 22, 23, 27, 30, 31, 32, 34, 35-

4. Extraversion: This dimension captures the degree to which individuals seek out social interaction, enjoy it, and act with energy and enthusiasm in social environments. It is essentially a measure of sociability. Items: 8-, 15-, 16-, 20-, 26-, 28-, 29-

Note: Items marked with a minus (-) are reverse-coded.

Participants respond to each item using a dichotomous format: “Applies” or “Does not apply”. Depending on the item’s orientation, responses are scored with 1 point for “applies” and 0 points for “does not apply”. Scores for each subscale are then summed to calculate the respective subscale values.

The SMSC demonstrates adequate to good psychometric properties: The reliability (internal consistency) of the overall scale ranges from α = .65 to .74, indicating moderate to good reliability. The subscales show variability, with α values between .56 and .78. Construct validity has been confirmed through correlations with well-established psychological constructs such as social anxiety, social insecurity, extraversion, Machiavellianism, and self-awareness (Stürmer & Collani, 2009).

The SMSC provides a differentiated profile of the participant’s social competence, adaptive capacity, and interpersonal sensitivity. Within the context of this study, the instrument serves to support Hypotheses H1 and H2 by potentially revealing developmental delays in emotional growth or social autonomy. These findings may suggest a heightened need for external support in managing everyday social demands.

3.3 Quality criteria of the methodological framework

The combination of qualitative and quantitative research methods on which the MMR is based poses certain challenges in terms of compatibility. In particular, the fundamental differences between the two research approaches make it difficult to combine them and to reconcile their quality criteria.

Lüdemann et al. (2019, p. 104) make it clear that one of the central challenges of MMR lies in the epistemological discrepancy between the constructivist foundations of qualitative research and the positivist paradigm of quantitative research. While qualitative research views reality as subjective and context-dependent and is therefore based on a constructivist paradigm, quantitative research is based on the positivist paradigm with the assumption of an objective, measurable reality. These fundamental differences lead to divergent views on validity, reliability and generalizability as

quality criteria, which makes it difficult to assess research quality, especially when both methods are combined in MMR approaches (Lüdemann et al., 2019, p. 104).

The development of integrative quality criteria that do justice to both paradigms and create a coherent basis for evaluation is therefore also a central challenge for this research work. This work follows the approaches of Philipp Mayring (2020), who is particularly credited with establishing criteria for ensuring the quality and credibility of qualitative research findings. Mayring (2020, pp. 498-500) describes that qualitative research requires specific, method-sensitive quality criteria to meet the requirements of scientific rigor, including the systematic development of categories and the verification of reliability and validity through iterative procedures. Using these tried and tested criteria, this study aims to create a methodological basis that guarantees the high quality and reliability of the research results.

The six central quality criteria according to Mayring (2023, pp. 123-125) include:

1. Rule-based: The research process should follow clear and comprehensible rules to ensure consistency and comparability of the results (Mayring, 2023, pp. 123-124). All steps of the research process, from data collection to data analysis, are precisely documented in Chapters 3 and 4. This includes the description of the selection of research participants (3.1.1), the survey instruments (3.2) and the steps of data analysis (Chapter 4).

2.Procedural documentation: Detailed documentation of the research process ensures transparency and thus enables other researchers to understand the study and review the results. Mayring (2023, p. 123) emphasizes the following specific areas: The need to clarify prior knowledge, to select appropriate analytical tools, and to practically conduct, implement, and evaluate the data collection process. Prior knowledge is established in detail in Chapters 1 and 2. Chapter 3 includes the selection, detailed description and use of the survey instruments, while Chapter 4 precisely reports and interprets the investigation, analysis and results. The precise and detailed documentation of the entire research process fulfills this quality criterion.

3. Proximity to the subject: researchers should establish a close relationship with the research subject and ideally immerse themselves directly in the lifeworld of the people being studied (Mayring, 2023, p. 124). The exploratory research question of this study, along with the author's close personal connection to Manuel as an exemplary individual case, clearly illustrates the author's direct involvement. Both the research project and its findings are aimed at developing practical approaches to enhance the social participation of young people with disabilities, thereby addressing the interests of those involved.

4. Communicative validation: The research findings are discussed with participants or other relevant stakeholders to obtain feedback and, if necessary, revise the results (Mayring, 2023, p. 124). Due to time constraints, this quality criterion can only be implemented after the completion of the research project, meaning that any corrections will not influence the current study. Nevertheless, maintaining communication with all parties involved remains an important objective.

5. Triangulation: To validate the findings and gain a more comprehensive understanding of the research subject, different methods, data sources, theoretical perspectives, or researchers are incorporated (Mayring, 2023, p. 125). This study addresses this criterion through its MMR design, which combines qualitative and quantitative approaches and draws on a range of instruments and data sources. Furthermore, the theoretical section offers an in-depth discussion of diverse perspectives on the research topic, thereby fulfilling the requirements of this quality standard.

6. Argumentative validation of interpretations: Interpretations must be consistently well substantiated and supported by empirical data. Researchers are expected to consider alternative explanations and address potential inconsistencies (Mayring, 2023, p. 123). In this study, argumentative validation is ensured through careful grounding of interpretations in qualitative data, descriptive findings, and direct references. Alternative interpretations are explicitly acknowledged, and potential inconsistencies are addressed transparently (see Chapter 4.4) to enhance the credibility of the findings. Furthermore, the methodological triangulation and the supplementary

integration of quantitative data strengthen the validation and robustness of the interpretations. This quality criterion is therefore considered fulfilled.

In addition to the criteria relevant to qualitative research, this study also considers the established quality standards of quantitative research, which are particularly important for the administration and analysis of the three standardized questionnaires:

Validity refers to the extent to which a questionnaire measures what it purports to measure (Renner et al., 2012, pp. 58-59).

Reliability concerns the consistency of measurement results: a reliable instrument yields comparable outcomes when applied under similar conditions (Renner et al., 2012, p. 57).

Objectivity addresses the independence of the results from the researcher. An objective instrument should produce the same results regardless of who conducts the survey or performs the evaluation (Renner et al., 2012, pp. 56-57).

The selection and application of the standardized questionnaires in this study were guided by strict adherence to these principles. All instruments were chosen based on their documented high validity and reliability to ensure maximum objectivity. This careful selection guarantees the quality and trustworthiness of the collected data and thus provides a solid foundation for the resulting interpretations and conclusions of the study.

Conclusions and Recommendations from Chapter 3

This study adopts an exploratory research design utilizing an embedded mixed-methods approach, with qualitative methods forming the core of the investigation (Schreier & Odağ, 2020, p. 12). Quantitative methods are integrated to complement and validate the qualitative analysis, thereby facilitating a holistic understanding of the research subject (Creswell & Plano Clark, 2017, p. 10).

The central research question explores what measures are necessary to enable individuals with social-emotional disabilities to participate meaningfully in social life. To answer this question and the related working hypotheses, the study applies an in-depth single case study design, drawing on long-term developmental records of a young adult. According to Yin (2018, Chapter 1), this method is particularly well suited for an in-depth, context-sensitive examination of a specific case. Given the twelve-year span of developmental data analyzed, the study qualifies as a longitudinal case study, allowing a nuanced perspective on individual developmental trajectories (Witzel, 2010, p. 291).

The core methodological approach involves qualitative content analysis following Kuckartz (2020), supplemented by a semi-structured expert interview based on Helfferich's SPSS model (2011, pp. 182-185). A genogram based on Hildenbrand's (2024, Ch. 3) approach further enriches the analysis by mapping family structures and transgenerational patterns.

This embedded mixed-methods design integrates qualitative and quantitative methods. The quantitative components consist of standardized tools such as the Bochum Attachment Questionnaire (Neumann et al., 2007) for assessing attachment quality, the SEK-ES questionnaire on emotional competencies (Ebert et al., 2014), and the SMSC questionnaire on social behavior (Collani et al., 2009). These instruments enable a more differentiated view of individual profiles and reinforce the empirical grounding of the findings.

The study adheres to established quality criteria in qualitative research (Mayring, 2023, pp. 123-125), including rule-guided procedures, documentation of methods, proximity to the research subject, triangulation, and argumentative validation of interpretations. In parallel, the study upholds the core quality standards of quantitative research - validity, reliability, and objectivity - to ensure methodological rigor (Renner et al., 2012, pp. 56-59).

By combining qualitative and quantitative strategies, the study yields structured insights into the individual and systemic conditions that influence the social participation of people with social-emotional disabilities. In doing so, it supports the theoretical framework proposed by Klaes and Johnson (2016a) and contributes to practice-relevant strategies for individualized care and social integration.

The next chapter provides a comprehensive and detailed presentation of the systematic research process and empirical findings. Special attention is given to the step-by-step documentation of the methods used, the data analysis procedures, and a transparent, differentiated discussion of the results. These findings are subsequently examined through the lens of alternative interpretative frameworks to ensure robust theoretical reflection.

4. CHAPTER IV. EMPIRICAL PRESENTATION OF THE PROCEDURE AND THE RESULTS OF THE MIXED METHODS DESIGN WITH SUBSEQUENT DISCUSSION

This section is dedicated to the empirical investigation of the research questions formulated in advance for this dissertation. The chapter is divided into three main parts: the methodological process documentation and the data collection of the research work, the differentiated analysis and presentation of the results of the data collected and then the summarizing discussion and interpretation of the overall results. The final part is a conclusion, which also provides an outlook.

4.1 Process documentation

In qualitative social research, the precise documentation of the research process is an essential element that goes far beyond a methodological necessity. Flick (2007, pp.186-187) describes the importance of this meticulous and transparent approach not only as a means of ensuring methodological integrity, but also as a foundation on which the scientific credibility of the study rests. The aim of detailed procedural documentation is to ensure that non-involved parties can always follow the course of the research, which is essential to critically scrutinize and evaluate the results obtained and the methods used. Lincoln and Guba (1985, p. 316) also believe that attention to detail contributes to transparency and thus to the validation of the reliability of qualitative data and increases confidence in the results. This care in documentation therefore serves as a cornerstone for the scientific integrity of qualitative research, as described in detail in Chapter 3. The following figure (2) precisely illustrates the process of this research:

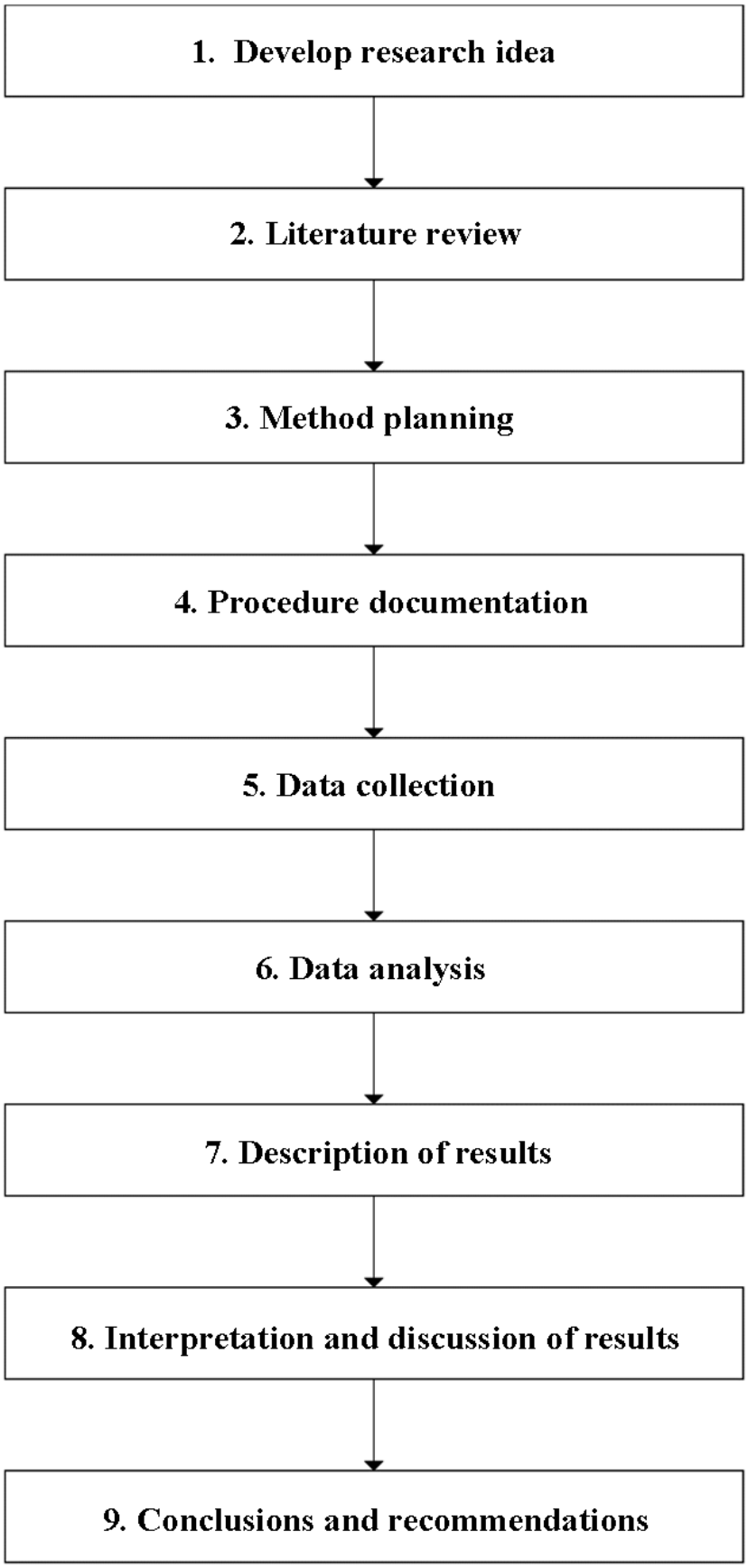


Figure 2: Research process
Source: Own illustration

Steps 1 to 3 of the research process were described in detail in the previous chapters, starting with the development of the research idea (introduction and chapters 1 and 2), embedded in the literature review (chapters 1, 2 and bibliography) and the method planning and description (chapter 3). The following chapter concentrates on steps 4 to 8, which, in addition to the procedure described above, include data collection (4.1 and 4.2), data analysis (4.3) and the description of the results (4.3). As an important concluding step of this chapter, limitations are discussed transparently, which can be found following the discussion in subchapter 4.5. Step 8, the interpretation and discussion of the results, is presented and discussed in detail in chapter 4.4. The final ninth step, which summarizes the conclusions, implications and limitations of the work, is not assigned to a chapter, but forms an independent part of the work that rounds off the entire study.

4.2 Data collection

Data in the form of development reports, a specialist assessment, certificates, a genogram, the documentation of a guided interview with an expert and the quantitative data from the surveys of the standardized questionnaires BoBi, SEK-ES and SMSC are available for the present analysis. These different data sources are delineated in detail below, each presented and analyzed separately to obtain a transparent picture of the research process. This is followed by a descriptive presentation of the results, which are first illustrated and explained individually. Furthermore, the results are brought together in a synthesis in section 4.4 and interpreted and discussed in the context of the existing research questions and theory.

4.2.1 Development reports, specialist medical certificate and certificates

In this individual case study, the focus is on the detailed analysis of 18 development reports and 19 certificates ranging from the first grade to the completion of vocational college and thus the gardening apprenticeship and a specialist medical certificate, which were collected over a period of 12 years. These documents provide an in-depth look at the long-term socio-emotional development and the challenges associated with the everyday life, school and professional life of the person under investigation, Manuel. The decision to use school reports and a medical certificate in

addition to the development reports was based on the approach of content-structuring content analysis according to Kuckartz (2020, pp. 129-130), which is particularly suitable for the systematic evaluation of extensive qualitative data in the context of a person-centered case study.

The consideration of school reports in the analysis of Manuel's developmental processes contributes significantly to answering the research question by not only providing data on his emotional and social interactions but also allowing insights into his cognitive performance and behavioral patterns in the educational context. This decision was made in light of the findings of Johnson (2014) and Klaes and Johnson (2016b, p. 7), which show that cognitive impairments are one of the characteristics of the social-emotional handicap disorder. The testimonies therefore provide additional insights into the subject's everyday experiences, emotional states and social dynamics outside the protected and secure living situation.

4.2.2 The genogram

The genogram used in this work was created over time by various systemic family therapists at the facility where Manuel lives and was continuously expanded until the father's death in 2019. To draw the genogram, the specialists traveled to the family's home to gain additional insights into the living situation and to use them. In addition to the living situation, the genogram was used to gain comprehensive insights into the family structures and the historical generations that presumably actively influenced Manuel's social and emotional development and current situation. A further aim of the facility with the help of the genogram was (and still is) to promote Manuel's self-confidence and to establish a valuable identification with his family, which is particularly important to broaden his understanding of his own family roots and their significance for his personal identity.

4.2.3 Conducting and documenting the written interview

For the empirical part of the dissertation, a guided interview was conducted with the expert Winfried Klaes. The answers to the questions were also submitted in writing to a Zoom meeting on December 14, 2024, and then prepared for analysis.

Preparing and conducting the interview

Before the interview, the interviewee Winfried Klaes was informed in detail about the aim of the research. This information included an explanation of the background to the research and a description of the research questions that were to be investigated as part of the study. To comply with the ethical and legal framework, the participant's consent was secured by signing a declaration of consent and a data protection declaration (see https://www.institut-johnson.de/jana/ewk.pdf). These documents informed the interviewee about their rights, the method of data collection, the storage and the planned use of the collected data. The storage and use of the data was based on the research ethics recommendations of the authors of the websites *Datenschutzrecht* (2025) and *Datenschutz in Der Forschung* (2024).

The interview questions were compiled in writing in advance and sent to the expert. The questions and the procedure were then discussed in detail in a Zoom meeting on November 10, 2024, to eliminate any ambiguities and clarify the understanding of the questions. The questions asked in the interview were carefully designed to gain a comprehensive insight into the expert's views and knowledge of the phenomenon of social-emotional disability. They were also explicitly intended to shed light on the challenges that exist both in the diagnosis and in dealing with this particular problem. Furthermore, the questions focused on practice: the practical approaches and interventions that are considered effective in enabling the people concerned to participate in social life to the best of their abilities were discussed. The discussion also covered the importance of society's perception, or rather non-perception, of this problem and the associated role it can play in promoting or hindering social integration. Furthermore, the questions aimed to highlight existing research gaps and discuss the need for future research and development efforts in this area to sustainably improve the quality of life of those affected. The answers to the questions were formulated in writing by Klaes and submitted for analysis on December 14, 2024.

Documentation and analysis

After receiving the written responses from Winfried Klaes on December 14, 2024, these were carefully stored in compliance with security measures and only made accessible to the author of the study. The written answers replaced the traditional transcription of an oral interview and served as the basis for the further content analysis.

The method of content-structured content analysis according to Kuckartz (2020, pp. 129-156) was used to evaluate the interview responses. This methodical approach makes it possible to categorize the written documents submitted in a structured manner to work out the thematic focal points and summarize their content.

4.2.4 Quantitative data

The standardized questionnaires were completed in Manuel's apartment on 23 April 2024 at 3 pm. To avoid possible distortions according to Appinio Research (2025) and to ensure the objectivity of the answers, Manuel was supported by a self-chosen reference person, while the presence of the author was deliberately excluded. This approach was intended to ensure that external influences from the author were minimized and the authenticity of the data collected was maximized. The reference person translated unclear passages or words that Manuel did not understand as objectively as possible and without personal references. It took Manuel around two hours, interrupted by occasional breaks to smoke cigarettes, to (almost) complete the questionnaires. The completed questionnaires can be viewed anonymously as an attachment under this link: www.institut-johnson.de/jana/fragebogen.pdf.

4.3 Data analysis

The data analysis of this study is described in detail below. To provide a methodologically sound basis for the interpretation of the collected data, qualitative content analysis according to Kuckartz (2020) is described in detail as an analytical tool, followed by its practical application to the available documents. The evaluation of the genogram according to Hildenbrand (2024) is then described in detail, followed by the exploration of family patterns and their influence on individual development according to this approach. The associated results are first presented individually under

the respective documents and evaluations. The analysis and results of the interview are then explained and finally the questionnaire evaluation is explained, followed by the presentation of the descriptive findings, which completes the empirical section of this research.

4.3.1 Qualitative content analysis according to Kuckartz

Qualitative content analysis according to Kuckartz (2020, p. 129) ensures a high degree of transparency and methodological traceability as well as flexible adaptability to the specific characteristics of the research material, which particularly supports the explorative character of this study. This evaluation is suitable for the rule-guided analysis of communicative content or documents and can be used both inductively-exploratively and deductively-hypothesis-testing (Kuckartz, 2020, p. 129). The present work uses *content-structuring content analysis* with a combination of deductive and inductive elements (Kuckartz, 2020, p. 129).

At its core, the content-structuring content analysis according to Kuckartz (2020, p. 132) is based on the systematic and rule-based categorization of text segments: First, the material is sifted through, then relevant text passages are identified and assigned to preliminary categories. These categories are continuously reviewed and refined to develop a coherent, comprehensive structure that reflects the entire data material in the context of the research topic.

Methodical approach

1. Reviewing the data material: First read through the text to gain an overview.
2. Creation of a coding guide: development of a category structure, which is deductive and inductive, with suitable text examples.
3. Test coding: Test of the coding guide on part of the material. The guide is checked and, if necessary, adapted.
4. Coding of all documents: Systematic assignment of all relevant text passages to the categories.
5. Review and adjustment: Checking the shelf life and completeness of the categories.

6. Analysis and interpretation: Evaluation of the coded content regarding the research question and embedding in the theoretical context.

With this approach, thematic patterns and structures can also be identified in large volumes of documents. The method is particularly helpful when extensive text material is to be systematically examined and the categories need to be flexibly adapted to the research interest (Kuckartz, 2020, p. 147).

In the next step, the specific analysis process for determining the individual influences on Manuel's development is presented using the development reports and the specialist medical certificates. This is followed by the certificates and the detailed evaluation of these documents. The analysis of all the text material was carried out by the author of this work without any technical aids but was performed using the printed material on paper and with the help of various highlighters, despite the considerable additional work involved! The results were then transferred and inserted into tables directly in Word. In order to maintain the transparency of this analysis step, the individual steps of the procedure were systematically written down for all documents used and are presented below.

4.3.2 Qualitative content analysis of the development reports and the specialist medical certificate

The final categories can be found in Table 4:

Table 4 Final categories of the content-structuring content analysis

Main category	**Subcategory**	**Summary**
1. general development	Everyday structure and independence	Manuel continues to need intensive support with everyday tasks such as hygiene, household management and structuring his day. His life is heavily dependent on external control to maintain a stable routine. His body awareness is limited, and he does not dress appropriately for the weather.
1. general development	Social integration and group behavior	Manuel is generally integrated into groups but has difficulties with social interaction. He needs opportunities to withdraw to avoid conflicts, as he often reacts impulsively in stressful situations.
1. general development	Bonding and relationship skills	Manuel develops close but dependent relationships with caregivers. Changes in the care team often lead to uncertainty and emotional destabilization.
1. general development	Independence and its challenges	The desire for normality led to independent living, but this was accompanied by massive overload. Without regular external support, Manuel fell back into old patterns of behavior such as neglecting his hygiene and failing to manage his household.
1. general development	Coping with everyday life after moving out	After moving out, Manuel got into increasing difficulties despite outpatient care: Disorder, bad financial decisions, problems with neighbors and neglect eventually led to his reintegration into assisted living.
2. identifying features and challenges	Impulse control and frustration tolerance	Manuel often reacts impulsively and has difficulty processing frustration appropriately. This manifests itself in verbally aggressive outbursts or complete withdrawal.
2. identifying features and challenges	Emotional dysregulation	His emotional experience fluctuates greatly, especially in new or overwhelming situations. He needs regular support from caregivers to regulate his emotions.
2. identifying features and challenges	Self-image and identity development	Manuel often overestimates himself and has an unrealistic image of his abilities. His desire for normality is often at odds with his actual abilities.

2. identifying features and challenges	Overconfidence and pressure to normalize	He perceives himself as more independent than he is. This pressure to normalize often leads to excessive demands and relapses into destructive behavior.
2. identifying features and challenges	Problems with money and resource management	Manuel spends money impulsively and overestimates his financial resources. This often means that he no longer has sufficient funds towards the end of the month.
2. identifying features and challenges	Personal hygiene and health challenges	He needs daily reminders to shower, dress appropriately for the weather, brush his teeth and change his clothes. After moving out, his hygiene deteriorated drastically, to the point of causing health problems.
3. educational and therapeutic measures	Structured daily routines and external control	Without fixed structures, Manuel finds it difficult to regulate his daily routine independently. He tends to shift his day-night rhythm, which leads to further problems.
3. educational and therapeutic measures	Attachment-oriented interventions	Long-term, stable caregivers are crucial to providing Manuel with security. Trusting relationships stabilize his emotional situation.
3. educational and therapeutic measures	Practical support in everyday life	Without external support, Manuel cannot reliably manage basic everyday tasks. These include shopping, cooking, laundry and housekeeping.
3. educational and therapeutic measures	Outpatient care and its limits	The outpatient support (10 specialist service hours per week) after moving out was not sufficient to cover his actual needs. Closer support would have been necessary.
4. educational and employment prospects	School performance and school challenges	He has considerable concentration problems and needs intensive support to be able to follow the lessons.
4. educational and employment prospects	Professional development and work behavior	He benefits from structured working environments but is quickly overwhelmed. A safe working environment with understanding superiors is essential.
4. educational and employment prospects	Long-term prospects in working life	Self-employment is unlikely. Due to his impairments, he will require a supervised working environment in the long term.

4. educational and employment prospects	Workstation adaptation to individual needs	His workplace is tailored to his abilities and limitations. He can work there stably thanks to close support.
5. parental work and family dynamics	Family of origin and relationship dynamics	Contact with the family is often stressful and triggers stress. Arguments with his siblings are a particular challenge.
5. parental work and family dynamics	Challenges on the way home	Visits to the family regularly lead to emotional crises. He needs days after each trip home to stabilize again.
5. parental work and family dynamics	Need for support through external care	Manuel will also be dependent on external care in the long term in order to lead a stable life.
5. parental work and family dynamics	Relationship with his child and his child's mother	Contact with his son is sporadic and strongly characterized by conflict. He can only assume limited responsibility as a father.
6. health aspects and current challenges	Medical care and psychological stress	His health situation is precarious. The cancer and the associated treatment are an immense psychological burden.
6. health aspects and current challenges	Dealing with serious illness (testicular cancer and chemotherapy)	Manuel shows great fear and resistance to the therapy. He has difficulty accepting the necessity of the treatment.
6. health aspects and current challenges	Effects of the illness on independence and care	The illness meant that Manuel was even more dependent on care. His plans for independence had to be abandoned.
6. health aspects and current challenges	Psychosocial consequences of the disease	In addition to the physical burden of the illness, Manuel also suffers from severe emotional anxiety and a feeling of helplessness.

Methodological approach according to Kuckartz (2020, p. 132) - Content analysis of the development reports:

1. Definition of the main deductive categories

The main categories were defined in advance based on the findings of the underlying theoretical assumptions. The orientation was based on the recurring aspects of the development reports:

- General development (e.g. independence, social interactions)
- Recognizing characteristics and challenges (e.g. impulse control, emotional dysregulation)
- Educational and therapeutic measures (e.g. day structure, care concepts)
- Educational and work prospects (e.g. challenges at school, work situation)
- Parental work and family dynamics (e.g. family of origin, trips home)
- Health aspects and current challenges (e.g. personal hygiene, dealing with illness)

These categories served as a framework for systematically organizing the documents.

2. Initial analysis and inductive derivation of subcategories

After the initial review of the texts, recurring themes and patterns were identified, whereupon inductive subcategories were created that reflect this content.

Example:

Main category: Identifying features and challenges

- Subcategory: Impulse control and frustration tolerance
- Subcategory: Emotional dysregulation
- Subcategory: Self-image and identity development
- Subcategory: Problems with money and resource management

These inductively obtained categories enabled a differentiated view of individual development and contribute important findings to the overall picture.

3. Second analysis and expansion of the categories

After the initial categorization, the documents were reviewed again to identify possible additional inductive subcategories.

➡️ This ensured that no relevant content was overlooked.
➡️ New subcategories were added, particularly in the area of health challenges and independence.

Example of a supplement:

- New subcategory: Dealing with serious illness (testicular cancer and chemotherapy)
- New subcategory: Psychosocial consequences of the disease

4. summary of the contents

For each sub-category, key content was filtered out of the reports and summarized concisely. Care was taken to ensure that:

➡️ Core statements from the reports are retained
➡️ The structure is comprehensible and scientifically sound
➡️ The summaries can be used as a basis for further analysis

The results were presented in tabular form (Table 4) to ensure a clear and systematic presentation.

4.3.3 Qualitative content analysis of the testimonials

The final categories of the content analysis of the 19 reports from 3 different schools can be found in Table 5.

Table 5 : Final categories of the content analysis of the testimonials

Main category	**Subcategory**	**Summary**
1. general behavior and social behavior	Social behavior in the classroom	Manuel is generally friendly and helpful towards his classmates. He actively participates in social life in class but occasionally needs support in resolving conflicts.
1. general behavior and social behavior	Interaction with teachers	His relationship with teachers is usually respectful. He regularly seeks contact with caregivers but often needs individual guidance to be able to concentrate on the lessons.
1. general behavior and social behavior	Impulse control and emotional stability	Manuel's behavior has fluctuated greatly over the years. While his work is stable at times, there are always impulsive reactions and sudden moments of frustration.
1. general behavior and social behavior	Changes in social behavior over the years	Manuel's social behavior has improved with age. While he often acted impulsively when he was younger, he now shows more self-control and social adaptability.
2. learning behavior and working methods	Concentration and stamina	Manuel has difficulty staying focused for long periods of time. His concentration drops quickly, especially when it comes to tasks that don't directly interest him.
2. learning behavior and working methods	Motivation and willingness to work	He shows a high level of motivation for practical and creative tasks but quickly loses interest in theoretical or written work.
2. learning behavior and working methods	Dealing with homework and obligations	He does his homework unreliably. He needs a clear structure and regular supervision to keep to his school commitments.
2. learning behavior and working methods	Changes in learning behavior over the course of school years	While Manuel was heavily dependent on support in the first few years of school, his independence has improved slightly. Nevertheless, he still finds it difficult to organize himself.
3. school performance and progress	Services in German	Manuel enjoys reading and is confident orally but has problems with spelling and written expression.

3. school performance and progress	Achievements in mathematics	He understands mathematical concepts well but needs support with complex tasks. He finds mental arithmetic difficult but prefers practical applications.
3. school performance and progress	Performance in general studies and science	He shows a great interest in scientific subjects and actively participates in lessons.
3. school performance and progress	Performance in artistic subjects	Manuel has creative skills but finds it difficult to concentrate on one task for long periods of time.
3. school performance and progress	Performance in sport and motor development	He is active in sports and shows commitment in class but occasionally needs guidance to coordinate his movements.
3. school performance and progress	Performance development over the years	His school performance fluctuates greatly, depending on his motivation and form on the day. Over the course of his time at school, he has made better progress in practical areas than in theoretical ones.
4. special challenges and individual support	Special educational needs and special educational support	Manuel needs continuous support, especially in the areas of self-organization and impulse control.
4. special challenges and individual support	Problems with self-organization	He has difficulties structuring himself independently and needs clear instructions and external support.
4. special challenges and individual support	Influence of ADHD symptoms on everyday school life	His ADHD-related distractibility and motor restlessness have a strong impact on his school performance. Structured daily routines help him to find his bearings better.
4. special challenges and individual support	Professional orientation and training phase	After leaving school, Manuel focused on horticulture. His practical skills are good, but the theoretical content is difficult for him.
4. special challenges and individual support	Experience in worker training and vocational school	During his apprenticeship, he developed well in practical activities. The theory was challenging for him, but he was still able to complete his training with a ‘satisfactory’ grade.

Methodological approach according to Kuckartz (2020, p. 132) - Content analysis of the testimonials

1. Definition of the main deductive categories

First, main categories were defined based on the central aspects of school and vocational certificates and resulting from the research topic. These categories included:

- General behavior and social behavior (e.g. interaction with classmates and teachers, emotional stability, changes in social behavior over the years)
- Learning behavior and working methods (e.g. concentration, motivation, dealing with homework, changes in learning behavior)
- School performance and progress (e.g. in major and minor subjects, artistic subjects, sports, performance development)
- Special challenges and individual support (e.g. influence of ADHD, self-organization, support measures, professional orientation, experiences in education)

This basic structure was used as the starting point for the analysis.

2. Initial analysis and inductive derivation of subcategories

Following the initial review of the material, subcategories were inductively developed to more precisely capture specific developments and challenges.

Example:

Main category: Academic performance and progress

Subcategory: Performance in German

Subcategory: Performance in mathematics

Subcategory: Performance in artistic subjects

Subcategory: Academic development over time

3. Second analysis and expansion of the categories

After the initial categorization, the entire certificates were reviewed again to identify possible additional subcategories.

➡️ The aim was to capture all relevant content from the certificates.

➡️ New categories were added, particularly in the areas of professional development and training phase.

Example of a supplement:

- New subcategory: Vocational orientation and training phase
- New subcategory: Experience in worker training and vocational school

This second analysis enabled a more detailed and differentiated recording of individual developments over the years, which is relevant for answering the research question.

4. Summary of the contents

The most important statements from the testimonials were systematically summarized for each subcategory.
As in the document analysis above, care was taken to ensure that:

➡️ The core information from the certificates is preserved
➡️ The structure remains comprehensible and has a scientific basis
➡️ The results provide a basis for further analysis

The contents were also presented in tabular form (Table 5) to ensure a structured and clear presentation.

4.3.3.1 Results of the evaluation of the reports and the specialist medical certificate

In summary, the analysis of the available documents makes it clear that Manuel's social-emotional restrictions are not just superficial and temporary but have a lasting and significant impact on his everyday life and on his long-term prospects. According to the reports, these limitations manifest themselves on several levels and appear to

require continuous, intensive educational support to improve his quality of life and enable him to participate in society as fully as possible in a way that is tailored to his individual needs. This is also confirmed by the medical specialist's opinion, which points to Manuel's long-term need for support and emphasizes that without continuous care, he is quickly overwhelmed in his everyday life and falls back into earlier developmental patterns.

Effects on daily life

Manuel's need for stable attachment figures is constantly evident in his everyday life. He needs organizational and educational support in all areas of his life to feel safe and manage his tasks, from getting up every day and personal hygiene to keeping his apartment tidy. The medical certificate also emphasizes that Manuel is unable to structure and organize his daily life without the presence of a caregiver. One specific example is his dependence on caregivers for planning and carrying out everyday activities, such as personal hygiene or choosing clothes that are suitable for the weather, shopping or social interaction with his son. Without this support, he can easily become overwhelmed, which often leads to impulsive behavior such as aggressive outbursts or withdrawal. These behaviors are particularly noticeable in unforeseen or emotionally stressful situations and make it clear that his ability to act independently is severely limited. However, this not only impairs his participation in social life, but also leads to restrictions in his well-being.

Social interactions and emotional regulation

According to the reports, Manuel's social and emotional development is characterized by a significant and long-term impairment that seriously overtaxes his existing skills. The specialist opinion confirms this, in particular Manuel's deficits in emotional self-regulation in stressful or unforeseen situations. He often reacts impulsively and aggressively to stressful situations or withdraws when he feels overwhelmed. The lack of regulation can be seen particularly clearly in the fact that he interprets comments or the behavior of others as personal attacks, which regularly leads to conflicts and misunderstandings with his fellow human beings. These constant

complications in social interaction limit his ability to build, maintain and sustain stable social relationships (incidentally, this also applies to his relationship with his son), which in turn leads to an increase in his social isolation. In addition, Manuel's ability to empathize is clearly limited; he is unable to understand the feelings of other people or adequately perceive their emotional needs, which makes interpersonal communication and building relationships even more difficult, especially regarding his role as a father.

The reports document that his emotional maturity has remained at the level of a toddler, which prevents him from assuming adequate responsibility for his own behavior or for others - particularly his son - and further confirms his lack of empathy. The medical opinion makes it clear that these deficits lead to highly conspicuous reactions characterized by frustration, which can manifest themselves in verbal or physical aggression. Particularly worrying is the low frustration tolerance, which leads to Manuel perceiving even minor demands (e.g. shopping or showering) as overwhelming and reacting sensitively to them on bad days. Without the continuous and consistent loving support of his caregivers, Manuel can neither cope with the conflicts that arise nor regulate his emotions independently, let alone organize his everyday life on his own.

Long-term prospects

In the long term, Manuel's prospects are severely limited by the lack of development opportunities. A good example of this is his carers' assessment that he will be dependent on educational and comprehensive organizational support for the rest of his life, as without help he will immediately fall back into old patterns of behavior - total neglect and isolation with aggressive tendencies. This prognosis is based on many years of consistent observation that even in a protected environment, such as a supervised residential group with a constant connection to a stable caregiver, Manuel has difficulties remembering basic everyday tasks, coping with them or finding his way around socially. His professional environment also shows that he is only partially able to work in a closely supervised environment. The medical specialist's opinion confirms

that Manuel's progress in the work environment is only incremental, limited in time and dependent on a caregiver being present. Although his workplace at Lagano GmbH, which has been individually adapted to his abilities and needs, offers him stability, health and emotional stresses regularly lead to absences from work and problems with consistent performance. These restrictions indicate that he will probably never be able to participate independently in social life and that his ability to self-determine is severely impaired.

Worrying development in the state of health

Of particular concern are the current developments in Manuel's health since moving into his own apartment with low care hours in November 2022. The accompanying reports describe that in the following September 2023, he was diagnosed with testicular cancer, which had already spread to the abdominal cavity, causing massive additional emotional and physical strain. The chemotherapy treatment, which was extremely difficult for him to cope with both physically and mentally, presented him with major personal challenges. Manuel's understanding of the potential and actual long-term consequences of this disease is limited, which led to him simply refusing treatment cycles despite intensive support from caregivers and resisting medical and personal advice, which would have further worsened his health prognosis without support. This health problem exacerbated his existing social, emotional and physical problems and significantly increased his already great need for support, as he was even less able to look after himself in this condition than before. Fortunately, after the outbreak of the illness, he moved back into the protected environment of the residential group at his own request and received the support he urgently needed (the author of this paper was also involved in this).

Family contacts and emotional stress

The later reports indicate that massive stress is also evident in family contacts, which further impairs Manuel's emotional development. Telephone contact with his siblings, especially his eldest brother, is often characterized by conflicts, misunderstandings and excessive demands, as he has difficulties recognizing,

processing and mediating family problems. The relationship with his son is particularly problematic, which can and may only take place under supervised supervision due to situational and social overload on Manuel's part. The specialist medical opinion emphasizes that Manuel does not have the necessary emotional skills and lacks the impulse control to take on an independent father role, which further complicates his family relationships.

Need for support

In view of these extreme social and physical challenges, the need for continuous and intensive support appears to be absolutely essential according to the documents. The medical opinion, which was drawn up for the purpose of assessing the degree of disability and installing legal guardianship, also emphasizes that support should not only focus on coping with everyday life, but also on promoting Manuel's emotional and social skills. For example, according to the analysis, it would be important to offer him long-term, appreciative prospects, for example through individually tailored vocational support that considers his abilities and interests and could allow him a certain degree of independence. At the same time, however, the search for a valuable identification with his family is also of great importance to help him gain more self-confidence and self-worth. In addition, his state of health requires close medical and educational care to further stabilize the course of his cancer and support him in enduring the necessary therapy.

Overall, there appears to be a risk that Manuel could regress without such support, which would further restrict his quality of life and his ability to participate actively and meaningfully in society. The results of the analysis therefore underline the urgency and importance of comprehensive care and support that is geared towards his individual needs. The author of the specialist opinion emphasizes that his state of health further increases the need for action and necessitates a closer integration of social, medical and educational care in order to ensure Manuel's stability and quality of life in the long term.

4.3.3.2 Results of the evaluation of the certificates

The comprehensive longitudinal analysis of Manuel's school and vocational reports provides valuable insights into his continuous cognitive development over a longer period of time. Despite attending special schools throughout his school years, there are clear improvements in his academic performance, particularly in mathematics and German, as well as in his social behavior and his ability to self-regulate in a school setting. Early challenges, such as motor restlessness and concentration difficulties, have increasingly changed over time and have led to improved adaptability and a sense of responsibility, particularly in cooperative and project-oriented, practical tasks.

The analysis is based on deductively and inductively developed categories, including social behavior, emotional stability, cognitive development, and classroom participation. These categories allow for a nuanced assessment of Manuel's progress and challenges by capturing the complex interactions between his individual needs and the educational approaches that have contributed to his educational and vocational development. The testimonies show that the educational and vocational assessment does not meet the usual standards but has been adapted to Manuel's own emotional-cognitive abilities. All report cards come from specialized educational institutions with a focus on social-emotional support, which are geared towards students with special learning needs, and reflect individual support that is tailored to Manuel's level of development and his potential. It should also be noted that there were extra classes with reduced group sizes, particularly at the special school, which benefited Manuel.

The school reports show that Manuel's performance was always assessed in the context of his emotional and cognitive abilities. His commitment and his solid to good performance in oral subjects are particularly noticeable. Furthermore, his strengths appear to lie particularly in practical application and active oral participation, although the particular type of school must be considered here.

The examination certificate for horticultural worker training also underlines the fact that the assessments are tailored to his individual abilities. This specialized form of training is aimed at people with learning or developmental problems and aims to

take their individual needs into account. Manuel's satisfactory overall result reflects his adapted performance, with him demonstrating particularly solid skills in practical areas, while showing some need for support in theoretical subjects.

4.3.4 Evaluation of the genogram according to Hildenbrand (2024)

To analyze Manuel's genogram taking Hildenbrand's systemic approach into account, the following steps are taken after a description of Manuel's general life course (Hildenbrand, 2024):

1. Structural analysis: In this step, the family members and their relationships to each other are identified. Particular attention is paid to the living conditions of the generations.
2. Analysis of attachment patterns: This step examines the structure of attachments within the family, in particular, whether they are secure or insecure. Particular attention is paid to signs of attachment disorders that develop over generations and intensify in the next generation.
3. Recognizing transgenerational patterns: Identification of recurring behaviors, traumatic experiences and their effects on subsequent generations. This is particularly relevant regarding the present attachment disorders as the main topic of this work.
4. Identification of family resources and stresses: Examination of stabilizing and destabilizing factors within the family, such as mental illness, addictive behavior, as well as the existence of support systems.
5. Developing hypotheses and creating a systemic hypothesis model: Based on the previous findings, hypotheses are formulated about Manuel's behavior and its origins, which are rooted in the family structure and the attachment patterns experienced. From this, an overall picture is drawn up that captures the various behavioral and attachment patterns represented and takes a look at the transgenerational transmission of the same.

4.3.4.1 Results of the evaluation of the genogram analysis

General curriculum vitae of Manuel

This tabular overview (Table 6) contains all (known) relevant life stages and special features in Manuel's life to date, which are included in the genogram analysis in addition to the pure visualization of the family members and their special features:

Table 6: Manuel's curriculum vitae in tabular form

			Dates of birth
Personal data		Manuel	March 25, 1998
	Marital status	Single, Father of a son (E.), lives in his mother's household	*August 2019
Parents, 3rd marriage Father	Mother Father	R. K.H.	*1959, + 2014 *1943, +2019
Grandparents	maternal side	Grandmother A.M. Grandfather H.	*1923, + 1982 *1922, + 2001
	on his father's side	unknown	
Manuel's siblings from his father's third marriage		S. J. C., mentally handicapped D., premature birth, J. E.	*1985 *1985, early + *1994 * +1994 / 1995 *1995 *2000
Manuel's siblings from his father's second marriage		H. H. J. A.	*1968 *1970 * 1971
Educational pathway	2005-2012	Schule auf der Wild, special educational support center of the Merzig-Wadern district	
	2012-2015	Kindelsberg-Lachsbach special school network	
	June 2015	Qualification: Special school certificate	
	2016-2019	Vocational college of the Märkischer Kreis in Iserlohn, Department of Agriculture and Horticulture	
	May 2019	Degree: Gardening and landscaping worker	

Professional experience	2015-2016	EQJ (entry qualification for young people) at Lagano GmbH, Hilchenbach	
	2020-2022	Central vocational training area of the AWO Siegener Werkstätten	
	2020-2022	External workplace: Lagano gGmbH, gardening and landscaping company, non-profit organization	
	2023	Change from the vocational training area to the work area, still employed at Lagano gGmbH as an external workplace	
Family and life events	1999-2004	Early motor skills development	
	2002	Admission to the SOS Children's Village Merzig (removal from the family environment due to neglect)	
	2003-2009	Occupational therapy	
	November 2012	Move to an inpatient residential group in Hilchenbach	
	December 2014	Death of the mother	
	December 2017	Death of the father	
	July 2018	Change to the independent apartments	
	August 2019	Birth of son, separation from girlfriend→ Son remains in mother's household	
	November 2022	Move to own apartment with continued educational support of 10 specialist service hours per week	
	September 2023	Diagnosis of testicular cancer, retreat to the assisted living apartments of ISAF e.V.	

1. Structural analysis

The genogram of the family consists of many members, extending over three generations on the maternal side. The paternal side ends at the level of the father, about whose parents nothing is known. It is also unknown whether the father has any siblings.

Manuel's father had been married twice before, the first of which was childless. The second marriage produced three children, who were born between 1968 and 1971. The first-born child was a daughter, the two following children were boys. The daughter from the second marriage, thus Manuel's half-sister, is also married for the second time and presumably has a total of four children, one from the first and three from the second marriage. Nothing else is known about the half-siblings, Manuel has no contact with them. The dates of the first and second marriages are also unknown, as is the marriage date of Manuel's parents. This third marriage, which was Manuel's mother's first, produced six children. Two children died prematurely, J, born and died in 1985, of meningitis and D., presumably born and died between 1994 and 1995, died prematurely. Manuel was born in 1998 as the penultimate child, he has four brothers and one sister. His brother C., who was born in 1994, is mentally handicapped. Manuel's mother R. was originally a geriatric nurse and housekeeper before becoming a housewife because of the children. R. was obese, had a neglected and unkempt appearance characterized by loose and dirty clothes and missing teeth, and she was a chain smoker, which she also practiced inside the home, regardless of any children present. As a child, she reported that she had been to church a lot on Sundays. R.'s parents, A.M. and H., were married first and had seven children. R. has a twin sister who cleaned in a nursing home and is described as thin, good-natured and having practiced many abortions. The two twin sisters have three older sisters and one older and one younger brother, who died in 2014. The middle of the three older sisters also died in 1979 when she gave birth to twins at the age of 24. All of the sisters are married, two of them for the second time. The two brothers were only married once each. It is striking that R.'s siblings are either dead or seriously ill, with everything from brain tumors to asthma, diabetes and chronic back problems. R. had little or no contact with her siblings during her lifetime, Manuel does not know his relatives.

The maternal grandparents consist of A.M., who was born in 1923 and died in 1982. She was described as a dear mother, quiet, slim, a beer drinker and a pub-goer with a stomach ailment. R.'s father, who was born in 1922 and died of a heart attack in 2001, was described as strict. He worked in mining and later ran a pub. He sang in a

choral society, attached importance to school and tended his kitchen garden. He was also affected by asthma and heart disease but smoked a lot despite his illnesses. Manuel didn’t know his grandfather.

Manuel’s father, K.H., was born in 1943 and was therefore 16 years older than R. He was also a miner before working in drywall construction. He was a keen angler and belonged to a fishing club, enjoyed playing cards, had good handwriting and cooked very well. He described himself as a gardening professional. All that is known about his childhood is that it was characterized by hard work and not being allowed to be a child.

In 2002, all the children, except for the first-born, were taken from the family. The kindergarten had noticed massive neglect tendencies in all the children, especially the mentally handicapped C., and after a visit from the youth welfare office, the children were taken from the family and placed in an SOS Children’s Village. The exceptions were S., the eldest son, who remained with the family, C., who was placed in an institution specializing in his needs, and the last offspring E., who was placed in a foster family. However, it was not only the massive neglect of the children that led to their removal, but also the overall neglect of the living situation ("Messie household") and the discovery of the father’s large porn collection, which the young children were helping themselves to without protection. Overall, both the living environment and the parents’ limited educational measures were considered to be a threat to the children’s welfare, so that the youth welfare office had to react immediately. The children had been on their own since infancy and later wandered around alone as toddlers without an adult to protect them.

However, the change to a new environment, without constant caregivers, did not lead to a stabilizing phase as hoped, but rather to Manuel’s growing distrust of close relationships and adults. As a result, he showed clear emotional dysregulation in the SOS Children’s Village, in combination with his remaining siblings, which manifested itself in impulsive and aggressive behavior. He developed a low frustration tolerance and had difficulty controlling his emotions, directing his aggression towards everyone

and everything. This did not subside over the next few years; on the contrary, he began to develop delinquent behavior, which led to the children's village having to part with him. In 2012, Manuel moved again at the age of 13 and since then has lived in a residential facility run by ISAF e.V. These facilities were set up by the author in 2003 to provide a home for vulnerable and at-risk children. Manuel has lived in the assisted living groups since 2012, with a brief interruption from November 2022 to September 2023. From 2022 to 2023, he tried to live in his own apartment at his own request, but this failed and led to similar neglect, including the Messie tendencies that his parents already showed at the time. In mid-2023, Manuel was diagnosed with testicular cancer, which had already spread to his abdominal cavity and required serious medical treatment. He became so stressed about this that he voluntarily moved back into sheltered housing and the protected environment it provided. He is currently cancer-free and is back in good physical condition as well as in a stable working mode, which is visibly benefiting him. Even during this difficult time, Manuel has only received intensive support from the caregivers at the facility. He still has no contact with anyone from his family!

2. Analysis of bonding patterns

The circumstances in this family show consistently difficult attachment patterns across the generations, which have become established and intensified over several generations. Even at the grandparents' level, there appears to be a lack of secure attachment to their own children, as indicated by the lack of contact on both sides (except for the maternal grandmother, who died in 1982). A further indication of a lack of stable attachment patterns is the fact that many people in the family had been married several times, the father three times.

This lack of contact continuity as a result of an insecure attachment pattern can be found both at the sibling level of the parents, who have no or only sporadic contact with each other, and at the level of Manuel. If at all, he has very sparse telephone contact with his eldest brother, but this is complicated due to the massive social-emotional restrictions on both sides. But even when Manuel's parents were still alive,

Manuel’s contact with his parents was very limited and extremely short-lived. In summary, it can be said that both the grandparents and the parents, as well as the subsequent generation, have great difficulties with lasting bonds and continuity of contact.

As a result, the quality of attachment patterns is extremely limited, which leads to unstable or insecure attachment patterns and their transgenerational transmission. While the quality was still marginally present at the grandparent level, it has steadily declined with each subsequent generation and led to massive attachment disorders, which appear to have led to Manuel’s social-emotional handicap via both epigenetics and a lack of secure attachment in early childhood. It follows from this:

3. Transgenerational patterns

The structural and attachment-oriented analysis from points 1 and 2 makes it clear that patterns of insecurity, emotional distance and inadequate care have been established in Manuel’s family over several generations. His parents’ childhood was already characterized by neglect and a lack of stable attachments, which significantly limited their ability to pass on emotional security to the next generation. This pattern continued in the upbringing of their own children, forcing dysfunctional relationship dynamics.

While his mother had little involvement in family structures due to her own attachment insecurities, his father experienced a childhood characterized by hard physical work and emotional neglect; even as a child, he was not allowed to be a child and instead had to help out in construction at an early age. Both lacked the necessary resources to provide their children with a stable and reliable environment. As a result, patterns of interaction developed in Manuel’s family that were characterized by excessive demands, a lack of sensitivity and a lack of structure, which is easily recognizable in the massive neglect of her own person, her own children and her living environment.

The lack of parental support consequently led to an internalized insecurity in Manuel's own attachment patterns. Particularly problematic was the fact that the early placement with another parent, which should have helped to stabilize his development, represented an additional break in his attachment and exposed him to a stressful and unfamiliar new situation that he was unable to cope with independently.

These transgenerational patterns not only influence Manuel's own development but also carry the risk of being passed on to the next generation, to his son. The first signs are already visible: without structured supervision, he is not allowed to see his son under legal guardianship. His difficulties in forming stable social relationships and the lack of secure attachment experiences make it difficult for him to provide his own child with the emotional security that would be necessary for healthy development. We can only hope that his son has a reliable mother or other attachment figure who can compensate for Manuel's difficulties.

Illness as a pattern of identification

It is also striking that every person recorded in the genogram suffers from either physical and/or mental illnesses. Asthma, chronic back problems and cancer occur more frequently in all generations, as do heart conditions in some individuals. The people who were not affected by an illness died either as a child or as a young adult. It is interesting to note that hardly any positive identifying characteristics of people were passed on or could be described, only the health problems. It seems that almost all members of the family perceive themselves exclusively through these descriptions of illness, without any stabilizing factors to counteract them. Accordingly, illness appears to be a survival pattern in the sense of Hildenbrand (2024; Chapter 1) for the entire family over generations, irrespective of life events that may have triggered this illness, and this is exacerbated in each subsequent generation. For example, while grandfather H. could still be described as having few resources apart from his heart condition and asthma, all his children in the following generation are described as having an illness or having died at an early age. None of the children, except for a few from the profession, have positive resources to counteract the illness and are *passed on* to the

next generation (Manuel's). This survival pattern continues intensively, C. is considered mentally handicapped from birth without genetic markers, J. is also considered retarded from an early age, and Manuel needs motor and occupational therapy from a very early age. It became serious for him when he moved out to live independently, which led to a massive overload and subsequently to a diagnosis of testicular cancer. It would be conceivable to interpret this situation as a critical life event according to Hildenbrand (2024), to which Manuel could only react with familiar patterns due to a lack of resources: a relapse into old behaviors and identification with illness or early death. At this point it is very clear, that without support and a stable environment, Manuel would probably have already died from the illness according to his doctors!

The analysis of transgenerational patterns makes it clear that attachment cannot be viewed in isolation but must be understood as the result of a cross-generational continuum.

4. Family resources and stresses

There is little evidence of stabilizing resources. The few positive characteristics described, such as hobbies, professional qualifications or useful interests, offer only marginal support. Instead, mental and physical illnesses such as asthma, cancer, heart and back problems, depression, early deaths, neglect and a lack of stabilizing bonds dominate. Despite all this, Manuel has discovered two resources for himself that have led him to a high school diploma and a successful apprenticeship: Horticulture, which he *inherited* from both his father and his grandpa, as well as the value on a school education, which he also received through his grandpa.

5. Hypothesis formation and systemic hypothesis model

The insecure attachments in the entire family, combined with the transgenerational transmission of neglect, illness and total deprivation, probably led to Manuel's early attachment disorder or social-emotional handicap. As an example,

Manuel was already involved in early motor support as a toddler (1999-2004), which was followed by occupational therapy treatment from 2003-2009.

The parents' and grandparents' lack of attachment and parenting skills manifested itself in Manuel's impaired attachment and social behavior and, as a result, he became seriously ill. His difficulties in dealing with feelings such as anger, sadness and fear, his aggressiveness and his impulse control disorders can be interpreted as a direct result of these insecure and complicated attachment experiences.

The systemic hypothesis model enables a differentiated view of the family and social dynamics that influenced Manuel's development. Three central hypotheses can be derived from the analysis:

1. **Circular reproduction of excessive family demands**: Parental neglect and excessive demands are not isolated deficits but are passed on over generations as patterns within the family system, both through attachment disorders and through illness and death. Parents' experiences in their own childhood shape their parenting behavior and perpetuate problematic structures.
2. **Insecure attachment patterns and illness as a survival strategy**: Manuel's unstable and aggressive relationship behavior and his severe illness are not simply maladaptation, but functional strategies that represent a protective mechanism acquired early on. Manuel was programmed early on to take care of his own survival, but this does not necessarily work.
3. **Transgenerational transmission of stress**: The emotional insecurities, illnesses, deaths and experiences of neglect within the family are persistent patterns that are passed on and reinforced from one generation to the next, which can be seen in the many clinical pictures, among other things. This creates new insecurities that can continue in the bonds and parenting patterns of the following generation. It seems a logical consequence that Manuel reacted to a serious situation of excessive demands with a serious illness!

Sustainable intervention therefore requires measures that take both individual and systemic factors into account. A purely symptom-oriented approach would ignore

the underlying mechanisms and therefore not guarantee long-term stability. In the worst case, the mechanisms would continue to regress and, as a result of this, only the illnesses would remain as an identifying feature. Instead, a combination of resource-oriented support, the promotion of stable relationships and the processing of transgenerational stress patterns should be sought.

4.3.5 Evaluation of the semi-structured interview

The expert interview with Winfried Klaes was also analyzed using the content-structuring qualitative content analysis according to Kuckartz (2020, p. 129). According to Kuckartz (2020, p. 105), this method allows a systematic and transparent evaluation of the interview by not only aiming to break it down into individual categories but also considering the entire textual context. The original wording of content-related statements is retained even after categorization, which is reflected in the analysis and the presentation of results. The following Table 7 provides a structured overview of the central results of the content analysis; the complete transcript of the interview can be found here: https://www.institut-johnson.de/jana/jjdi.pdf .

Table 7 : Final categories of the content analysis of the interview

Main category	**Subcategory**	**Summary**
1. historical development	Earlier perception of the social-emotional handicap	The phenomenon was hardly noticed until the early 2000s. The rising number of cases and increasing excessive demands on professionals led to a growing awareness of the problem.
1. historical development	Reactions from experts and society	Initially, the handicap was explained by existing diagnoses without considering it as an independent phenomenon. Skepticism towards the assumption that it is a non-treatable impairment.
1. historical development	Changes due to new scientific findings	With advances in developmental neurobiology, the influence of early childhood trauma was increasingly recognized. New diagnostic categories such as ‘Developmental Trauma’ (DSM-5) and ‘Complex PTSD’ (ICD-11) contributed to differentiation.
2. identification features	Difference between impairment and handicap	Not every social-emotional abnormality is a permanent handicap. While impairments can be compensated for by supportive environments, a handicap is a permanent, neurobiologically anchored stress regulation disorder. This distinction is crucial for providing appropriate help.
2. identification features	Psychological and emotional symptoms	Those affected often show emotional dysregulation, sudden outbursts of anger, anxiety and depressive states. Their impulse control is reduced, which leads to problematic social interactions. Difficulties with emotional closeness and mistrust of attachment figures are also typical.
2. identification features	Social abnormalities and relationship problems	People with a social-emotional handicap often have problems with social integration. They are overly sensitive to rejection, have

		difficulties with empathy and show either strong social avoidance or a distant, inappropriate approach.
2. identification features	Negative self-image and lack of self-regulation	A central characteristic is low self-esteem, combined with deep self-doubt. They often lack the ability to self-soothe, which is why they are permanently dependent on external stabilization mechanisms. Their self-image is characterized by a fear of failure and the feeling that they cannot control what happens in their lives.
2. identification features	Neurobiological basics	Neuroscientific studies show that there are significant changes in stress regulation in those affected. The HPA axis, amygdala overactivity and reduced cortical inhibition are particularly affected. This leads to persistent inner tension, spontaneous bouts of agitation and poor adaptation to changing environmental demands.
2. identification features	Epigenetic and intergenerational effects	Early childhood stress exposure has been shown to lead to epigenetic changes. Methylation processes in the glucocorticoid receptor gene prevent effective stress attenuation. These changes can even be passed on across generations, meaning that children are born with an increased susceptibility to stress.
2. identification features	Diagnostic challenges	Traditional psychiatric diagnosis systems such as DSM-5 or ICD-11 are often inadequate to accurately capture the social-emotional handicap. The symptoms overlap with other disorders (ADHD, trauma disorders, autism spectrum), which means that misdiagnoses are common. A development-related diagnosis is necessary to correctly identify the actual impairment and provide tailored support.
3. interventions	Stress reduction as a central goal	Instead of relying on traditional educational measures, approaches should be developed that specifically reduce stress levels.

3. interventions	Commitment-oriented measures	Long-term, trusting relationships are crucial for stabilizing those affected.
3. interventions	Body-oriented interventions	Practices such as sensory integration, body-based therapies and co-regulation techniques show promising results.
3. interventions	Problems in practical implementation	A lack of institutional integration, unrealistic inclusion concepts and a lack of financial resources make implementation difficult.
4. research gaps and future developments	Lack of implementation of neuroscientific findings	Although numerous studies exist, these findings are rarely incorporated into social work and education policy.
4. research gaps and future developments	Lack of interdisciplinary cooperation	Social work, medicine and neuroscience often work in isolation from each other, resulting in a lack of a holistic approach.
4. research gaps and future developments	Need for early help	Preventive measures such as parental advice, midwife networks and early childhood support programs could mitigate long-term consequences.
4. research gaps and future developments	Long-term care instead of short-term therapy approaches	Society needs to accept long-term support measures instead of relying on short-term therapeutic success.

Methodological approach according to Kuckartz (2020, p. 132)

1. definition of the main deductive categories

First, main categories were defined based on the four central questions of the interview:

- Historical development of the social-emotional handicap
- Identifying features of the handicap
- Necessary interventions and measures
- Research gaps and future developments

These categories formed the basic structure for organizing and systematically analyzing the expert's statements by topic.

2. inductive derivation of subcategories (first coding)

After the first review of the interview script, several relevant topics and corresponding statements were found. Inductive subcategories were derived within each main category to ensure a holistic coverage of the main topics.

Example:

- Main category: Identifying features of the handicap
    - Subcategory: Mental symptoms
    - Subcategory: Social abnormalities
    - Subcategory: Diagnostic challenges

This initial coding made it possible to structure the content of the interview script without losing sight of the overall context.

3. second analysis and expansion of the categories

After the initial coding, the entire interview material was reviewed again to identify possible additional inductive categories.

➡ The aim was not to overlook any relevant content and to depict complex relationships more accurately.

➡ The analysis was intensified, particularly in the area of "recognition characteristics", to work out neurobiological, psychological and social aspects in even greater detail.

New subcategories from the second analysis:

- New subcategory: Epigenetic causes of the handicap
- New subcategory: Interaction of environmental and genetic factors

This second analysis enabled an even more differentiated recording of the experts' statements.

4. Summary of the contents

For each sub-category, the most important statements from the interview were analyzed scientifically. Care was taken to ensure that:

➡ The core information from the interview is retained
➡ The structure remains comprehensible and scientifically sound
➡ The results provide a basis for further analysis

The contents were presented in tabular form (Table 7) to provide a well-structured overview.

4.3.5.1 Results of the interview evaluation

The analysis is evaluated below in the order in which the questions were asked.

1. In your view, how has the approach to and knowledge of social-emotional handicaps developed over time - where do we stand today?

Historical development of the social-emotional handicap - Perspectives by Winfried Klaes

Winfried Klaes describes the development of the concept of social-emotional handicaps as a gradual process of discovery that was shaped by various scientific

disciplines over several decades. He emphasizes that the phenomenon was neither known nor recognized as an independent impairment for a long time. Until the early 2000s, affected children and adolescents were predominantly recorded under existing diagnostic categories such as emotional disorders or oppositional behavior, without taking a differentiated view of their individual problems. The causes of these impairments remained largely unexplored, which meant that traditional measures were often symptom-oriented and not cause-oriented.

Klaes argues that a turning point in the scientific discussion occurred with the increasing number of children and adolescents who became conspicuous in educational and therapeutic contexts due to serious emotional and social difficulties. This led to an interdisciplinary debate between psychology, social pedagogy and neuroscience, which ultimately enabled a differentiated view of social-emotional handicaps. In particular, the findings of trauma research and social neuroscience contributed to an understanding of the mental and neurobiological mechanisms of these impairments.

A key finding that Klaes emphasizes in this context is the importance of early childhood stress for neurobiological development. He describes that the first 18 months of life in particular represent a highly sensitive phase in which persistent stress - e.g. due to neglect, inconsistent attachment experiences or critical life events - can cause lasting changes in stress regulation. Klaes refers to current research findings that show that the HPA axis in particular, as well as the regulation of inhibitory neurotransmitters such as GABA, are often dysfunctional in affected individuals. This chronic dysregulation leads to increased sensitivity to stress, a reduced ability to self-regulate and persistent difficulties in social behavior and emotion processing.

On a diagnostic level, Klaes observes a positive development: while the social-emotional handicap was long classified within general behavioral disorders, more recent classifications have made a more precise differentiation possible. He refers to the introduction of “Developmental Trauma Disorder” in the DSM-5 and “Complex Posttraumatic Stress Disorder” in the ICD-11, both of which emphasize the importance of early childhood developmental stress. These new diagnostic categories are a step

forward, as they make it clear that social-emotional impairments are not purely a behavioral disorder, but a long-term, neurobiologically triggered stress regulation disorder.

Despite this scientific progress, Klaes still sees major challenges in the practical implementation of this knowledge. In particular, there is a lack of systematic institutional recognition of social-emotional handicaps. Many educational and therapeutic concepts continue to be based on outdated, deficit-oriented models that are based on mere behavioral modification instead of considering the profound developmental processes and neurobiological foundations. Klaes argues for a paradigm shift towards a trauma-sensitive and attachment-oriented pedagogy that consistently integrates scientific findings into prevention and intervention measures.

In summary, Klaes describes the historical development of social-emotional handicaps as a lengthy process that led from an initial ignorance of the phenomenon to an increasingly interdisciplinary and differentiated approach. He believes that the scientific basis of this concept is now largely established but points out that there is still a long way to go to establish this knowledge in educational, therapeutic and socio-political structures in the long term.

2. From your experience, can you explain which specific aspects are crucial in the diagnosis and treatment of a social-emotional handicap and how these differ from related phenomena? Which of these distinctions do you consider critical for the design of effective support measures?

In his interview, Winfried Klaes highlights the complex challenges involved in the diagnosis and treatment of social-emotional handicaps and the need for a precise differentiation from other mental or behavioral disorders. This clear differentiation is essential to ensure tailored care for those affected and to avoid misdiagnosis. In particular, he criticizes the widespread expectation that educational or therapeutic measures can bring about rapid and lasting changes in behavior. In fact, according to Klaes, this is a significant and persistent impairment that requires long-term and continuous support.

Klaes lists four main factors that are decisive for the development of social-emotional handicaps and therefore also (should) determine their diagnosis and treatment:

1. Highly stressful experiences in early childhood

- One of the main causes of the development of a social-emotional handicap is extreme and chronic stress in early childhood, which occurs particularly in the prenatal, perinatal and postnatal phases.
- The first two years of life are crucial for the maturation of stress-regulating structures in the right hemisphere of the brain, and chronic stress can already trigger pathophysiological changes in this early phase.
- Klaes points out that the HPA axis and the regulation of inhibitory neurotransmitters such as GABA[28] are particularly affected, resulting in long-term impairments in emotional regulation and behavioral control.

2. Disruption in the opening and closing of early development windows

- Another critical factor is the disturbed synchronization of neurobiological development processes, particularly in the right hemisphere of the brain. A disruption in synchronization is caused by chronic stress, deprivation or critical life events.
- These disorders prevent the development of self-regulatory networks, which are fundamental for horizontal neuronal integration.
- The result is a persistent deficit in self-control, which makes it difficult for those affected to adapt emotionally and socially to environmental demands.

28 GABA is an inhibitory neurotransmitter in the brain that ensures relaxation, stress reduction and sleep. An imbalance can lead to anxiety disorders, sleep problems or muscle tension.

3. Permanence of the stress experience

- Klaes argues that it is not just individual traumatic experiences, but chronic stress in particular that is decisive for the long-term effects.
- Sustained stress over a period of years impairs brain maturation and reinforces dysfunctional patterns in emotion and impulse regulation.
- These long-term physiological and psychological changes lead to increased vulnerability to mental disorders, difficulties in social interaction and massive problems in self-regulation.

4. Epigenetic processes and transgenerational transmission

- Klaes refers to neuroscientific findings that show that prolonged early childhood stress can trigger epigenetic changes that have long-term effects on gene expression.
- These epigenetic modifications influence the function of stress regulation mechanisms without changing the underlying DNA sequence.
- It is particularly significant that these changes can be passed on across generations, meaning that affected children are already born with an increased vulnerability to social-emotional impairments.

Behavioral level and diagnostic challenges

The main factors identified by Klaes lead to certain behavioral abnormalities that are recognizable in three central areas:

- Affective dysregulation and impulsivity: Those affected react inappropriately strongly to stimuli, show abrupt mood swings and have difficulty controlling emotional impulses.
- Social abnormalities and relationship problems: Klaes describes that many of those affected have difficulties establishing stable social relationships because they are either overly distant or act inappropriately aloof.

- Negative self-image and lack of self-regulation: Many of those affected show a pronounced insecurity in social contexts, react sensitively to rejection and have considerable difficulty in calming themselves down.

According to Klaes, an important problem is the overlap with other mental disorders. ADHD, autism spectrum disorders and trauma-related disorders in particular have similar symptoms, which increases the tendency for misdiagnosis. This highlights the need for a developmental diagnosis that goes beyond pure behavioral analyses and considers neurobiological, biographical and social factors.

Systemic challenges and interdisciplinary need for action

Klaes believes that adequate support for people with social-emotional disabilities is only possible through interdisciplinary cooperation between psychology, education, neuroscience and social policy. He criticizes the fact that existing support systems are often not tailored to the individual needs of those affected and that there is a lack of sustainable, long-term support measures. Klaes also addresses the social and systemic challenges associated with the recognition of social-emotional disabilities. He points out that considerable educational work is still needed to sensitize decision-makers and professionals to the complex nature of the impairment. At the same time, however, support systems need to be adapted to offer those affected the support they need in the long term.

3. Which measures and interventions do you consider to be most effective in supporting people with a social-emotional disability to participate in social life?

Supporting people with a social-emotional handicap requires a modernization and reorientation of interventions in accordance with the findings of social neuroscience and development-related trauma research. Klaes points out that traditional educational approaches, such as incentive and reward systems or purely cognitive training, often only have a limited short-term effect on this target group. Rather, a systematically coordinated and long-term concept of stress regulation is necessary to create the basis for social participation in the first place.

Permanently effective interventions should focus on reducing chronically elevated stress levels. Klaes argues that under the conditions of automated stress experiences, central functional systems - in particular the motivation system, impulse control and social self-regulation - are largely deactivated. It follows that participation in professional and social life can only be made possible if those affected experience fundamental stabilization through co-regulatory social interactions. The methods suitable for this are not to be understood as therapeutic measures, but rather as integrative approaches geared towards bonding and basal interaction.

According to Klaes, an effective intervention model is based on personal synchronization, i.e. the ability of people to adjust emotionally to one another through social interaction. For practical implementation, caregivers, educators and therapists must specifically address the social-emotional developmental level of the person concerned. This includes the use of body- and action-oriented methods such as those developed in "Neuro-systemic practice (NSP)"[29]. This concept, which was developed at his institute, combines attachment-oriented methods with neurobiological findings on stress processing.

Klaes emphasizes that the success of such measures depends largely on the structural framework. An isolated view of individual interventions is inadequate; instead, an overarching and comprehensive system must be created that pursues consistent approaches in residential facilities as well as in schools and in vocational integration. This implies turning away from short-term success criteria or the demand for self-determination but requires an understanding of the need for long-term support. In social policy practice in particular, however, there is a widespread tendency to focus interventions on measurable results, which clearly contradicts the processual nature of post-maturation and stabilization.

29 Source text: „Neuro-systemische Praxis“

The social inclusion of people with a social-emotional handicap therefore requires a broader understanding of participation that is not primarily based on self-regulation and personal responsibility in the traditional sense but instead recognizes the need for long-term support. Klaes argues for the expansion of long-term support systems, particularly within integration assistance. Without such a structural safeguarding of the framework conditions, there is a risk that inclusion efforts will turn into exclusion, as the people concerned will fail to meet requirements that they are unable to cope with due to their early childhood stress.

Finally, Klaes points to the need for preventative measures that establish early support systems for families under stress. In particular, the implementation of a comprehensive network of early help, for example through long-term midwife support or low-threshold support services for parents, is crucial to reduce the development of social-emotional handicaps. This would not only improve individual development opportunities but also minimize long-term social and economic costs.

To summarize, Klaes relies on:

- **Co-regulatory social work**: Stable relationships and personal synchronization processes are intended to calm the stress system of those affected.
- **Neuro-systemic practice (NSP)**: A methodological concept that combines attachment-oriented and body-oriented interventions, e.g. basal stimulation.
- **Long-term and structured support**: Measures must be long-term and coordinated - in residential facilities, schools and in the transition to work.
- **Process-oriented help instead of short-term success measurement**: Development cannot be measured linearly but takes place through long-term stabilization and maturation through appropriate intervention measures.
- **Integration assistance for adults**: Long-term support for people who are dependent on lifelong assistance due to their social-emotional handicap.

- **Prevention through early help**: Establishing support networks for families under stress to prevent the development of social-emotional handicaps.

4. Where do you see the biggest gaps in current research and practice regarding social-emotional handicaps and what future developments do you consider necessary and promising?

Winfried Klaes recognizes several key research gaps and challenges in practice when dealing with social-emotional handicaps. One of the key findings from neuroscientific research is that early, intense stress experiences have long-lasting, often irreversible effects on emotional and social development. Nevertheless, there is a clear discrepancy between this scientifically based knowledge and its application in socio-educational and therapeutic practice.

Research gap 1: Translating neuroscientific findings into practice

Although numerous studies have proven the neurobiological basis of social-emotional impairments, there is a lack of systematic integration of this knowledge into socio-educational, therapeutic and psychological training programs. Klaes calls for greater interdisciplinarity between neuroscience and social work so that professionals can apply effective methods of diagnosis and intervention in a targeted manner.

Research gap 2: Development of consistent diagnostic criteria

Current diagnostics often do not capture the long-term effects of early-life stress precisely enough. Klaes emphasizes the need for clear diagnostic markers to be able to distinguish between a severe social-emotional impairment and an actual handicap. A common diagnostic understanding and therefore a common language is crucial to provide tailored help and enable systematic support from social and integration assistance.

Research gap 3: Acceptance and social recognition of the social-emotional handicap

Klaes sees a central problem in the lack of social acceptance of the fact that social-emotional handicaps are not solely due to individual maladaptation or a lack of discipline. Rather, it is a socially and family-generated disability that requires structural and institutional solutions. The steadily rising number of cases shows that a sustainable and broad-based strategy is required not only to support those affected individually, but also to minimize the consequential economic costs.

To meet these challenges, Klaes calls for the following changes in social work practice:

- Expansion of neuroscientific knowledge in specialist training - curricula for social pedagogues, teachers and therapists should be clearly adapted to the current state of brain research.
- Development of a uniform support system - social work, medical diagnostics and socio-political measures must be better coordinated to offer those affected continuous and long-term support.
- Establishment of clear criteria for the recognition of social-emotional handicaps - this is the only way to provide those affected with meaningful individual support in integration assistance and assistance for the disabled.
- Promotion of early support services - the focus should be on preventative measures, such as a nationwide midwife network that provides families with continuous support from the first years of life.
- Better interdisciplinary cooperation between professionals - educators, therapists and social workers must develop a common language in order to be able to address the needs of those affected in a meaningful way.

Klaes argues that the term social-emotional handicap should no longer be taboo in professional circles and social policy but should be recognized as an independent form of disability. This is necessary to ensure access to long-term support and to avoid further overburdening those affected with unrealistic expectations of self-regulation and independence.

In conclusion, Klaes emphasizes that this is not just a theoretical debate, but an urgently needed social change. The increasing number of children, young people and adults affected requires a revolutionary rethink in social policy to give these people a fair chance to participate in society.

4.3.6 Evaluation of the quantitative questionnaires

The descriptive evaluation of the questionnaires is described separately for each one below. The description is followed by a separate presentation of the results in each case.

4.3.6.1 Evaluation and results BoBi

The Bochum Attachment Questionnaire (BoBi) was analyzed with the aim of evaluating the attachment styles of the person under investigation. The questionnaire consists of 36 items, which are divided into two subscales: Avoidance and Anxiety. The avoidance scale comprises the odd-numbered items, while the anxiety scale consists of the even-numbered items.

The items are rated on a seven-point Likert scale, with the end points labeled “strongly disagree” (1) and “strongly agree” (7). Some items are inverted to counteract judgmental tendencies. The inverted items concerned are: 3, 15, 19, 22, 25, 27, 29, 31, 33, 35.

For the evaluation, the values of the inverted items were reversed before calculating the scale mean values. The scale values were then calculated as the arithmetic mean of the item raw scores for each subscale.

Calculation of the scores

The scale averages were calculated as follows:

1. **Avoidance**: The mean of the responses to the odd-numbered items (1, 3, 5, ..., 35), with the inverted items being reverse scored.
2. **Anxiety**: The mean value of the responses to the even items (2, 4, 6, ..., 36), whereby the inverted items were also rated inversely here.

Results

The analysis of the Bochum Attachment Questionnaire (BoBi) resulted in the following mean values for the two subscales avoidance and anxiety:

1. **Avoidance**: The mean value of the Avoidance scale is **M = 2.88** (rounded to two decimal places).
2. **Anxiety**: The mean value of the anxiety scale is **M = 4.83** (rounded to two decimal places).

The evaluation of the avoidance and anxiety subscales provides important insights into the respondent's attachment patterns. A mean value of M = 2.88 on a seven-point scale was achieved in the avoidance scale. This value is in the lower middle range and indicates that the person shows a moderate tendency to avoid closeness and emotional openness in close relationships. This could indicate that the person occasionally keeps their distance in partnerships and possibly avoids sharing their emotions and thoughts with their partner.

On the anxiety scale, the person achieved a mean value of M = 4.83. This value in the upper range (>4 on a scale up to 7) indicates that the person feels a pronounced fear of loss and abandonment. People who score high on this scale tend to worry intensely about their relationships and are often afraid that their partner does not love them enough or that the relationship could be jeopardized. In practice, this often manifests itself in a stronger need for closeness and affirmation, combined with the fear of being abandoned or not receiving enough attention.

The combination of moderate avoidance and high anxiety suggests an insecure attachment orientation in Manuel, particularly in the direction of a more anxious pattern. The desire for closeness seems strong but is overshadowed by the fear of rejection. This tendency could indicate attachment patterns acquired at an early age in which emotional security was not consistently guaranteed, resulting in an increased need for it.

4.3.6.2 Evaluation and results SMSC

To carry out the data analysis of the SMSC questionnaire, a standardized procedure was used to assign the participant's responses to the individual items to the specific subscales and calculate them accordingly. The SMSC questionnaire comprises 35 items, which are divided into four subscales: Acting (A) - self-presentation in front of an audience, Other directedness (O) - orientation towards others, Sensitivity (S) - sensitivity to expressive behavior and social cues, and Extraversion (E).

Assignment of the items to the subscales

The items were assigned to the subscales according to the specifications of the test manual:

- **Acting (A)**: Items: 1-, 3, 4, 6, 9, 10, 12, 14-, 17, 25-, 33.
- **Other directedness (O)**: Items: 2-, 5, 7-, 11-, 13, 18, 19-, 21, 24-
- **Sensitivity (S)**: Items: 22, 23, 27, 30, 31, 32, 34, 35-
- **Extraversion (E)**: Items: 8-, 15-, 16-, 20-, 26-, 28-, 29-

The items with a minus sign were rated in reverse: "Applies" was rated with 0 points and "Does not apply" with 1 point. For all other items, "Applies" was scored with 1 point and "Does not apply" with 0 points. The points for each item within a subscale were then totaled to calculate the overall scores.

Calculation of the scores

- **Acting (A)**: The subscale is made up of 11 items, which means that a maximum score of 11 can be achieved.
- **Other directedness (O)**: This subscale contains 9 items, so that a maximum score of 9 is possible here.
- **Sensitivity (S)**: The subscale consists of 8 items, with a maximum score of 8.
- **Extraversion (E)**: This subscale comprises 7 items, which corresponds to a maximum score of 7.

Results

The results of the evaluation of the subscales of the SMSC questionnaire show the following picture of the social interaction patterns of the person examined:

- **Acting (A)**: The person achieved **M = 5** out of 11 possible points in the "Acting" subscale, which corresponds to a percentage of **45%**.
- **Other directedness (O)**: In the "Other directedness" subscale, the person scored **M = 2** out of a possible 9 points, which corresponds to a percentage of **22%**.
- **Sensitivity (S)**: In the "Sensitivity" subscale, the person achieved **M = 7** out of 8 possible points, which corresponds to a percentage of **87%**.
- **Extraversion (E)**: The person scored **M = 5** out of 7 possible points on the "Extraversion" subscale, which corresponds to a percentage of **71%**.

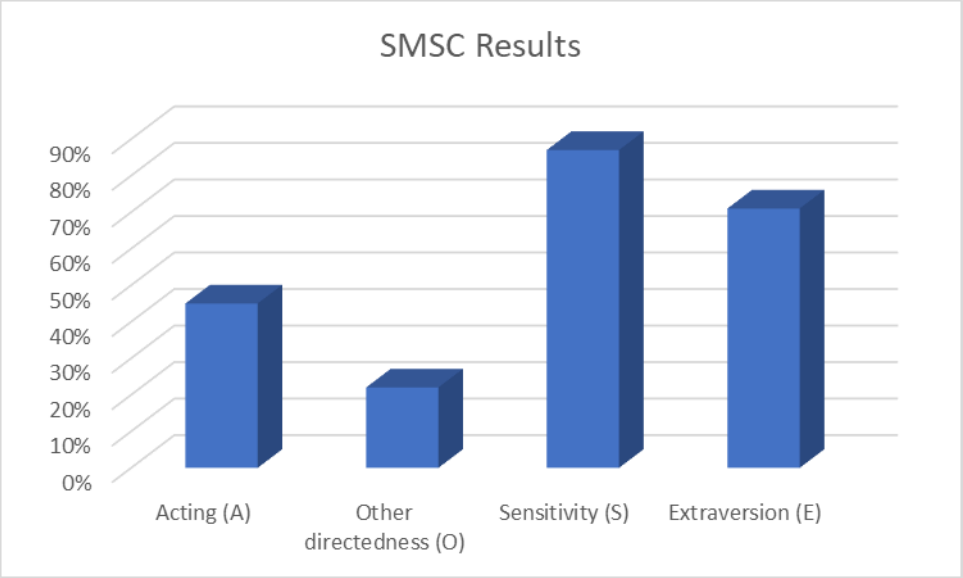


Figure 3: SMSC Results

The statistical evaluation of the subscales “Acting (A)”, “Other directedness (O)”, “Sensitivity (S)” and “Extraversion (E)” provides a differentiated picture of the subject’s social interaction patterns. In the “Acting” subscale, the person achieved a score of M= 5 out of a possible 11 points, which corresponds to a percentage of 45%. These results indicate that the person shows a moderate tendency to consciously put on

an act or play a role in social situations. However, it appears that this behavior only comes into play in certain situations.

In the “Other directedness” subscale, the person achieved a score of M= 2 out of a possible 9 points, which corresponds to a percentage of 22%. This low score suggests that the person does not base their behavior excessively on the expectations of others but rather makes independent decisions in which external influences play a very minor role.

With a score of M= 7 out of a possible 8 points (87%), the results in the “Sensitivity” subscale show that the person has a very high level of social sensitivity. This indicates that the test person can perceive and react to subtle emotional and social signals in their environment, which points to a clearly pronounced ability to perceive and process social dynamics.

Finally, the “Extraversion” subscale with a value of M= 5 out of a possible 7 points (71%) shows that the person is rather extraverted. They tend to be active and confident in social situations and have little difficulty integrating into groups or expressing their opinions and feelings openly.

In summary, the subscales paint a picture of Manuel who, on the one hand, shows moderate “Acting” tendencies, i.e. occasionally consciously puts himself in the limelight, but on the other hand is not heavily dependent on the opinions of others (“Other directedness”). At the same time, he has a very high level of social sensitivity, which enables him to perceive and react to the most subtle emotional and social signals. In addition, this is reinforced by a rather extraverted basic attitude (“Extraversion”), which is expressed in active, open interactions and a confident demeanor in groups.

4.3.6.3 Evaluation and results SEK-ES

The questionnaire for emotion-specific self-assessment of emotional competencies (SEK-ES) consists of two main parts:

- Part A: Feelings and moods (50 items)
- Part B: Dealing with feelings and moods, 12 items per affective reaction

Part A records the respondent's emotional state over the past week, while part B measures the eight emotion-specific skills of emotion regulation. The questionnaire was completed by the respondent, but items 6 and 7 from part B were not answered due to a lack of understanding.

Procedure for the evaluation:

1. **Part A (feelings and moods)**:
    - The answers were rated on a five-point scale from "never" (0 points) to "always" (4 points).
    - The sum of the points was calculated to record the general emotional state of the past week.
2. **Part B (dealing with feelings and moods)**:
    - This part includes questions on various emotions such as stress, anxiety, anger, sadness, depressed mood and more.
    - Each of the eight emotion-specific competencies is assessed based on 12 items, with the points distributed on a five-point scale from "not at all" (0 points) to "always" (4 points).
    - No points were awarded for the unanswered points 6 and 7. The missing answers were considered as missing values.

Results

The following statistical results were obtained after carrying out the data analysis of the SEK-ES questionnaire:

Part A: Feelings and moods

- **Mean value of feelings and moods**: The mean value of the 50 items that record the respondent's emotional state in the past week is **M = 2.18** on a scale of 0 to 4.

- **Part B: Dealing with feelings and moods**

The mean values of the emotion-specific competencies of emotion regulation (part B) were calculated for four emotional states, whereby the missing values (items scale 6 and 7 in the area of stress) were considered.

- **Stress**:
    - **M = 1.54** out of 4.
    - What was the highest level of stress/tension you experienced in the last week? **M = 9** out of 10
- **Anxiety**:
    - **M = 2.31** out of 4.
    - What was the strongest level of anxiety you experienced in the last week? **M = 8** out of 10
- **Anger**:
    - **M = 2.04** from 4.
    - What was the strongest level of anger you experienced in the last week? **M = 1** out of 10
- **Sadness**:
    - **M = 4.0** out of 4.
    - What was the strongest level of sadness you experienced in the last week? **M = 9** out of 10
- **Depressive mood:**
    - **M = 2.22** out of 4.
    - What was the most severe level of depression you experienced in the last week? **M = 8** out of 10

- **Positive feelings:**
  - **M = 4.0** out of 4.
  - What was the strongest level of positive feelings you experienced in the last week? **M = 8** out of 10

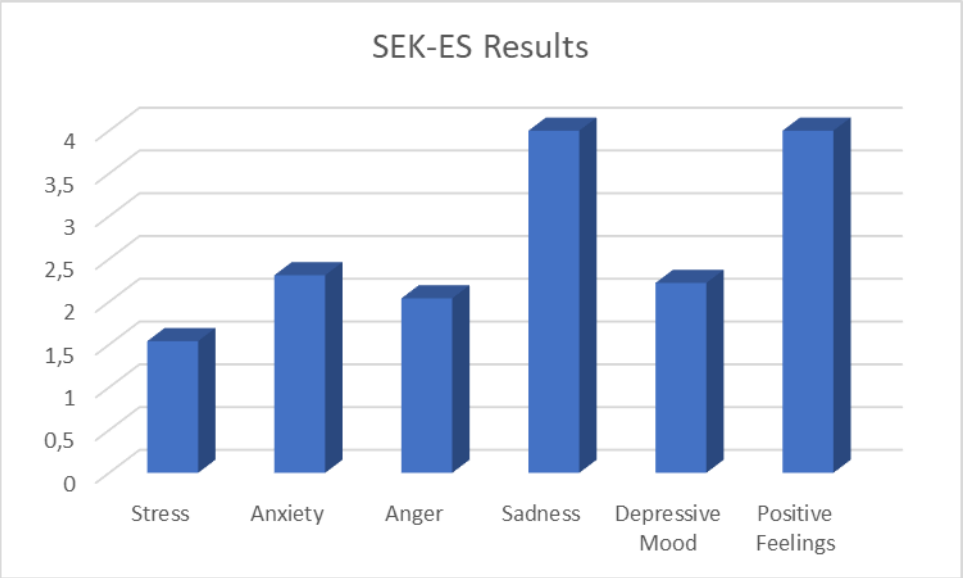


Figure 4: SEK-ES Results

The analysis of the SEK-ES questionnaire provides interesting insights into the emotional state and emotion regulation skills of the test person Manuel. The mean value of M = 2.18 for the general emotional state in part A shows that the respondent had an average emotional experience overall in the past week, which tended towards a slightly positive to neutral state. This indicates an emotional balance without extreme fluctuations into negative or overly positive states.

The second part of the questionnaire, which examines skills in dealing with specific emotions, reveals a differentiated picture of Manuel's emotion regulation skills, which contradicts the mean value of M = 2.18 for the general emotional state in part A in some places:

Strengths:

- Positive feelings: With a mean score of 4.0, Manuel shows a high level of competence in dealing with positive feelings. He is good at perceiving, understanding and reinforcing them.
- Anger: The low mean score of 2.04 in combination with the low intensity of anger (1 out of 10) suggests that the test person can regulate anger effectively.

Weaknesses:

- Sadness: The high mean score of 4.0 and the high intensity of sadness (9 out of 10) indicate difficulties in dealing with this emotion. Manuel seems to have problems understanding, accepting and appropriately regulating sadness.
- Stress: The low mean score of 1.54 in conjunction with the high intensity of stress (9 out of 10) indicates that Manuel has difficulty dealing with stress.

Ambivalent areas:

- Anxiety: The average mean score of 2.31 and the high intensity of anxiety (8 out of 10) show an ambivalent picture. Although Manuel has strategies for regulating anxiety, these do not appear to be sufficiently effective.
- Depressive mood: The situation is similar with depressive mood. The mean average of 2.22 and the high intensity (8 out of 10) suggest that Manuel can deal with depressive moods but still needs support.

Overall, it can be said that Manuel has ambivalent emotion regulation. While stress, anxiety and, in particular, sadness and depression are sometimes experienced very intensely by Manuel, strong positive feelings also occur at the same time. This indicates that Manuel tends to have a pronounced emotional reactivity and perceives both stressful and pleasant emotions particularly intensely.

4.4 Discussion: Synthesis of the results

The aim of this dissertation is to develop a comprehensive understanding of the long-term effects of early childhood deprivation and to derive professional action

perspectives for educational and psychological fields of work. A primary goal is the development of a hypothetical framework model that enables precise diagnostics and serves as a structured communication basis for professionals to develop a common language (Brunner et al., 2022, p. 24).

In this chapter, the empirical findings are interpreted holistically in the context of the hypotheses and theoretical assumptions made. The focus is on the explorative nature of the research, so that in addition to the interpretation of the central results, alternative interpretations are also systematically considered and processed. Special emphasis is placed on the analysis of the social-emotional handicap or early attachment disorder, which is considered in this work in connection with massive early childhood deprivation (Klaes & Johnson, 2016a). Traditional concepts that focus on self-determination and self-responsibility presuppose a sufficient ability to self-regulate - an ability that is demonstrably impaired in people who have experienced early deprivation. In light of the increasing prevalence rates of mental disabilities in children and adolescents (Federal Statistical Office, 2021) and the associated challenges for the social assistance sector, this study specifically sought strategies for action that can counter these worrying developments.

In the following, the working hypotheses are first discussed holistically in the context of the collected data and theoretical foundations. The methodological and theoretical limitations of the study are then considered, and the chapter ends with a conclusion and outlook.

4.4.1 H1: What information is relevant for the process of analyzing the social-emotional handicap of the persons concerned as a basis for action strategies?

Working hypothesis H1 deals with the question of what information is relevant for the analysis of social-emotional handicaps as a basis for targeted action strategies. To answer this hypothesis, various data sources and methodological approaches were combined in this study to obtain as holistic a picture as possible of the people concerned. Multidimensional biographical factors, family and social backgrounds,

neuroscientific findings, standardized data using questionnaires and the independent perspective of an expert were in the holistic view of the phenomenon of "social-emotional handicap", exemplified by Manuel as an individual case.

An isolated view that focuses exclusively on deficits or behavioral abnormalities is not sufficient for a precise and thorough description of the phenomenon. Instead, a target-oriented diagnosis requires the linking and interpretation of various sources of information in order to adequately understand individual developmental processes and the associated challenges and to derive consequences from them.

The following analysis of the subject Manuel, which serves as an exemplary individual case, illustrates this approach. Transgenerational patterns of neglect and attachment insecurities, identified through an in-depth genogram analysis, dominate his early life history and have exerted a significant influence on his social-emotional development and state of mind, confirming the basic assumption of Johnson (2014) and Klaes and Johnson (2016a). In their research, the authors postulate that early neglect and chronic stress have long-term and challenging effects on the social-emotional development of individuals (Johnson, 2019, pp. 38-39; Klaes & Johnson, 2016, pp. 90-91).

The family factors, such as the socially and emotionally unstable living conditions and early attachment insecurities or neglect tendencies, appear to be central to understanding Manuel’s social-emotional impairments. His life course up to adolescence shows clear attachment breakdowns and insecurities, which lead to an intense experience of stress in children and adolescents, especially in early childhood. Chronic stress is particularly problematic because, according to Strüber (2016, pp. 134-135), young children and infants are not yet able to regulate their stress experience independently. They are dependent on external regulation by a secure attachment figure, who controls the necessary hormonal influences through sensitive care and physical closeness and thus contributes to the development of healthy brain structures, especially the right hemisphere. Winfried Klaes also postulates in his interview response to question 2 that the long-term effects of early and, above all, chronic stress

and a lack of emotional stability have an unfavorable impact on children's development, which leads to a disruption in the synchronization of neurobiological processes, particularly in sensitive developmental phases. According to the evaluation of his curriculum vitae, Manuel was removed from his family at the age of four due to massive neglect, which clearly indicates an insecure and unstable attachment that already existed before he was removed. He had already received intensive early intervention before he was removed, as he had motor difficulties. This circumstance also points to massive attachment insecurities and a serious lack of care in his early years, which, according to Klaes and Johnson (2016a, p. 99), lead to brain morphological damage that is not completely reversible: Especially in sensitive developmental phases, which according to Wettig (2008, p. 39) are of considerable importance, e.g. from 6 weeks to 6 months. It can be cautiously concluded that Manuel was already affected by attachment insecurities during this time. Winfried Klaes makes it clear in his interview that the effects of early childhood stress and a lack of attachment security result in long-term emotional, cognitive and social challenges, which manifest themselves as persistent social-emotional handicaps in affected individuals. Even after being removed from his parents' home, Manuel continued to exhibit abnormalities in his emotional regulation and in building and maintaining social relationships as soon as insecurities arose, despite consistent and close attachment-oriented educational work at the SOS Children's Village. These difficulties in controlling one's emotions and responding appropriately to social stimuli support the theoretical assumptions of Klaes as well as Johnson (2014, 2019, pp. 38-39) and Nelson et al. (2023, pp. 1-12) and thus contradict the current state of pedagogical measures that focus on self-determination and personal responsibility as the main goal. The assumption that irreversible brain damage can result from deprivation during sensitive developmental phases within the first two years of life, which permanently impairs a person's behavior and general development, seems to be exceptionally confirmed by Manuel. The findings of the development reports, which document an unbroken need for intensive organizational and pedagogical support from familiar attachment figures for Manuel's sense of security and coping with everyday life, therefore seem to

contradict the hypotheses on cerebral plasticity by Rass (2014, pp. 24-25) and Schore (2003, p. 10). The authors' assumption is that the human brain remains malleable in adulthood even after experiences of deprivation and limited neuronal activation in the first three years of life and can learn from later experiences and adventures, particularly in the right hemisphere. In Manuel's case, learning only seems to be possible from a secure attachment offer, as Johnson (2014) and Klaes postulate. If the offer of attachment is lost, there is a relapse into old patterns and overstraining reactions. A suitable example from Manuel's results that illustrates this assumption is his workplace situation at Lagano GmbH. This shows that he can work in a more stable and constructive way by adapting his work tasks to his abilities and receiving close support from an attachment figure. This indicates that his brain can learn in new, stable and supportive environments despite previous experiences of deprivation, which is in line with the assumption of Rass (2014, pp. 24-25), Schore (2003, p. 10) and Strüber (2016, p. 53). However, if the offer of attachment is removed, e.g. by moving to a less supportive, insecure environment or by reducing the hours of care, Manuel falls back into previous behavioral patterns of excessive demands and, as a result, impulsive behavior and isolation. The learning experiences therefore do not appear to be internalized, but rather linked to the condition of a secure attachment offer, as described by Johnson (2019, p. 38). In other words, the reshaping of previous experiences within the right hemisphere of the brain appears to be unstable.

According to Klaes, epigenetics and transgenerational attachment patterns also play a central role in answering the question of which information is relevant for the process of analyzing a social-emotional handicap. Although, according to Klaes, the cementation of brain physiological developmental states through perineural networks during sensitive developmental windows indicates a certain immutability, it is ultimately epigenetic processes that ultimately contribute to the development of a handicap. According to Klaes, these processes cause a change in gene expression without altering the actual DNA sequence. In contrast to genetic changes, which affect the DNA sequence itself and are permanent, epigenetic changes only influence the activity of the genes. These modifications influence stress regulation and are passed on

over generations. A metaphorical comparison here would be a “switch” that can turn genes on or off. These switches are influenced by various factors, e.g. attachment patterns, and can be inherited. This means that experiences of parents or grandparents can influence the switches in their children and grandchildren. In the case of stress regulation, this can lead to affected children reacting more sensitively to stress from birth and becoming overwhelmed more quickly.

Manuel’s genogram analysis shows clear evidence of a transgenerational transmission of such epigenetic changes. Recurring patterns of emotional neglect and attachment disorders can be observed across several generations. Both his parents and grandparents apparently had difficulties in establishing stable and supportive relationships, indicating possible epigenetic gene expression. These familial patterns suggest that impaired emotional regulation and coping with stress, influenced by epigenetic factors, may have been passed down from generation to generation, reinforcing the predisposition to social-emotional handicaps in Manuel’s family.

These findings support the assumption of Klaes, Johnson (2014), Nelson et al. (2014) and the researcher that prolonged stress and lack of emotional stability in the early stages of development lead to long-term neurological changes and educational challenges. Given the complexity and lasting effects of early childhood experiences of deprivation and transgenerational attachment patterns - as the example of Manuel shows - a specific framework model is required to capture this phenomenon, as Klaes also points out in his interview on the fourth question. Here he notes that the establishment of clear criteria for the recognition of the social-emotional handicap is absolutely necessary. He argues that the lack of diagnostic precision not only means that many of those affected do not receive appropriate support but also hinders social recognition of the phenomenon. Such a model must therefore not only serve to differentiate between disciplines but also act as a basis for interdisciplinary cooperation and socio-political measures. The development of this model is the next logical step in ensuring that those affected receive the attention and support they need.

Based on the findings and theoretical assumptions described above, the following model could be used to answer the working hypothesis:

Diagnostic framework model as a result of the findings

1. Presentation of the current situation

A comprehensive analysis of life circumstances is required to assess the current situation of the person concerned - in this case Manuel - considering emotional, social and professional factors. The focus here is particularly on his emotional development, social integration and quality of life. To systematically record the characteristics of the impairment, it seems sensible to provide a description of the person in addition to the current, general situation, which is categorized as follows:

a) Emotional stage of development

The results of the individual case analysis show that Manuel's emotional development has stagnated at an early childhood level, which is reflected in a pronounced need for care and security. At the same time, there are considerable limitations in self-perception: self-assessments are often unrealistic, while a demonstrated (apparent) autonomy seems to be typical. Assistance is often vehemently rejected and attempts at correction are met with little acceptance and even physical resistance. This low capacity for self-determination often leads to overwhelming situations that are accompanied by escape behavior, withdrawal (which could also be misinterpreted as depression) or uncontrollable outbursts. A reduced capacity for empathy is evident in social interactions; relationships are unstable, while unfamiliar stimuli and situations trigger considerable stress.

A suitable example would be Manuel's observed behavior in group situations. He perceives himself as completely independent of other people but reacts in exactly the opposite way in group situations: if conflicting or unforeseen situations arise, he either reacts impulsively - aggressively - or withdraws completely. Such reactions of being overwhelmed also occur more frequently at night. If he does not feel safe with a trusted caregiver nearby, he suffers from panic-like sleep disorders, which further

exacerbates his limited resilience in everyday life. These observations are supported by the results of the BoBi. With a mean score of M = 2.88 out of 7 on the avoidance scale, Manuel shows a moderate to clear tendency to avoid closeness and emotional openness. This result confirms the consideration of a demonstrated (apparent) autonomy paired with a limited capacity for empathy, because although he perceives himself as independent from other people, he quickly reaches his limits in new situations and reacts with symptoms of excessive demands: aggressive defense or withdrawal. At the same time, his high score on the anxiety scale (BoBi: M = 4.83 out of 7) indicates a pronounced fear of loss and abandonment, and this emotional insecurity could exacerbate his tendency to feel overwhelmed. This value also shows a connection to his need for security at night: without a safe environment and caregiver, he is unable to sleep well, which further weakens his perception as an "independent person".

This discrepancy between self-perception and the perception of others is also evident in other results of the questionnaires. While Manuel perceives himself as an independent person, the results of the SMSC questionnaire - especially the very low orientation towards others (M = 2 out of 9) - indicate that he has difficulties understanding the perspectives of others and adapting his behavior accordingly. This interpretation also supports the assumption of a severely limited ability to empathize.

The resulting difficulties in social adaptation are in direct contradiction to his self-perception as an independent person. At the same time, however, the SMSC questionnaire shows a high sensitivity to social signals (M = 7 out of 8). This indicates a pronounced alertness to social and subtle information, which is closely related to his emotional insecurity (BoBi: anxiety: M = 4.83 out of 7 and SEK-ES: anxiety: M = 2.31 out of 4). It is possible that this high sensitivity could be an early survival pattern from his childhood. This assumption is also supported by the genogram analysis, which indicates that Manuel had to survive on his own from a very early age.

All these possible contradictions suggest that his self-perception is limited in certain areas. It is possible that Manuel rates his social skills and his ability to self-

regulate more positively than they are. However, this tendency to overestimate his own abilities is also evident in other areas. The results of the SEK-ES show that Manuel has overall difficulties with emotion regulation, which is also reflected in his everyday life. His average score for dealing with anger has a mean value of M = 2.04 out of 4. Although this score is in the medium range, everyday observations show that he has difficulties controlling impulsive reactions. This could indicate that his subjectively perceived emotion management does not always match his actual behavior.

b) Physical perception and appearance

Manuel's perception of his body is significantly impaired: The sensation of cold and heat is reduced, as is the perception of taste and smell. In addition to the limited sensation of hot and cold, an unrealistic or almost non-existent perception of pain is also noticeable, which leads to an increased risk of injury or a lack of awareness of the illness. These physical characteristics contribute to the fact that those affected cannot adequately process environmental stimuli and are therefore increasingly dependent on familiar routines and protected environments (Johnson, 2014, Klaes & Johnson, 2016b, pp. 6-7).

An additional characteristic resulting from these perceptual disorders is a pronounced deficit in hygienic behavior. Manuel must be reminded every day to take a shower, brush his teeth and change his clothes. After his failed attempt to live independently, his hygiene deteriorated drastically, to the point of causing health problems. For example, his lack of body awareness led to him wearing the same clothes for several days, which naturally gave off an unpleasant odor. In addition, dental hygiene and personal hygiene were often neglected, so that caregivers had to repeatedly intervene and remind him. This behavior also increased in stressful situations: In times of high stress, he completely ignored hygiene measures, which had an additional negative impact on his social integration. From this, it can be concluded that his sense of smell is underdeveloped, as he does not seem to consciously perceive changes in his own body odor or unpleasant or foreign odors in his environment. In addition to his lack of a sense of smell and hygiene, he does not perceive cold and heat accordingly.

He still does not dress appropriately for the weather without help; he cannot correctly classify changes in temperature.

The examples show that Manuel often has an unrealistic self-perception regarding his physical needs and confirm the characteristics postulated by Johnson (2014) and Klaes and Johnson (2016b, pp. 6-7) resulting from a reduced body image.

c) Level of cognitive development

The analysis of the reports makes it clear that emotional and cognitive development diverge: While Manuel can act competently in practical and interactive areas, he finds it difficult to internalize and apply abstract content or complex cognitive processes. The school reports show that Manuel's performance was always assessed in the context of his emotional and cognitive abilities. He attended special schools throughout, where he received support tailored to his individual needs, particularly in the area of practical application and coping with everyday life. Later, his commitment and solid to good performance in practical subjects was particularly noticeable. While he achieved good to very good results in practical tasks, he needed additional support in theoretical subjects. It is also noticeable that Manuel was only able to learn attentively when he had a secure frame of reference both inside and outside of school.

The examination certificate for the horticultural worker training course also shows that the assessment was tailored to his individual abilities and potential. This specialized form of training is aimed at people with learning or developmental problems and takes their special needs into account. His satisfactory overall result reflects his adapted performance, with him showing solid skills particularly in practical areas, while he continued to have difficulties in theoretical subjects. It is important to note that his tutor, as a key reference person, accompanied him to all his exams, providing him with additional reassurance and support.

Cognitive abilities can be placed on a continuum that ranges from a learning disability or mental impairment to cognitive abilities that can almost correspond to the level of a normally intelligent person (Johnson, 2014; Klaes & Johnson, 2016b, p. 7).

The authors argue that regardless of intellectual capacity, the ability to communicate rationally and process conversational content remains severely limited. As a result, those affected often act impulsively and cannot fall back on cognitive solution strategies in conflict situations. Even soothing verbal attempts aimed at gaining insight from those affected remain ineffective in stressful situations.

Another example that further supports this theory can be seen in Manuel's reactions to the vital medical treatment with chemotherapy. Despite urgent warnings from caregivers and doctors about the consequences of shortening or discontinuing his treatment, Manuel repeatedly refused to continue his vital chemotherapy due to the massive side effects, even though he could have died. He was unable to understand the urgency of this treatment.

2. Creation of a curriculum vitae from an ontogenetic point of view

An ontogenetic life course enables a comprehensive and holistic representation of the developmental process. The importance of recording this becomes very clear from Manuel's life and development history. The curriculum vitae should include the following stages of development and be based on purely objective data:

- **Early childhood development phases, especially birth to toddlerhood:** Documentation of the earliest stages of development, including physical health and development, cleanliness education, speech development, emotional development and first social interactions. It is also important to ask about physical problems due to the mother's pregnancy difficulties or birth trauma to rule out the possibility of disorders caused by organic damage.
- **(Parental) attachments:** Analyze the quality and stability of attachments to primary caregivers: When was the child intensively cared for and by whom?
- **Critical life events:** Documentation of events such as deaths in the family, moving house, changing schools and other potentially traumatic experiences that had an impact on development: What life stages were there? These recordings already clearly point to attachment breakdowns and complex life situations.

- **School development:** Chronological presentation of school career, special educational needs, achievements and special challenges: Manuel's educational pathway clearly shows that he was dependent on specialized support. From 2005 to 2015, he only attended special schools that offered him adapted support.
- **Professional career:** Description of professional integration and any adaptations in the workplace that were necessary to support specific needs: After completing his training as a worker in horticulture, Manuel worked in supported work environments. His professional development shows that he can work successfully in structured and adapted environments, while he needs support in unstructured or stressful situations. The documentation of his professional integration provides information on what adjustments are required in the workplace to ensure his long-term employability.

3. Symptom history

A comprehensive diagnostic model should definitely consider the symptom history independently of the life course, as subjective evaluations of interviewees and participants are often included here:

- **Psychological and medical interventions:** Therapeutic interventions, record of all psychological and medical treatments a person has received during their lifetime, including their duration, frequency and effectiveness: when did which difficulties or behavioral abnormalities begin and who noticed them→ was there a clear life course break or did the abnormalities take a gradual course?

  Manuel's individual case analysis shows a gradual progression:

  ➡️ Many years of psychotherapeutic care for emotion regulation

  ➡️ Early motor development from 1999-2004

  ➡️ Occupational therapy from 2003-2009 due to developmental delays

- **Supporting services:** Documentation of the use of social services and support systems

Examples from the individual case analysis:

➡️ Relocation of children to assisted living facilities in 2002

➡️ Reintegration into assisted living after being overwhelmed in your own home (2023)

➡️ Outpatient care not sufficient for his needs

- **Abnormalities in early childhood, kindergarten or other forms of care**

Examples from the individual case analysis:

➡️ Early childhood attachment disorder with aggressive behavior patterns

➡️ Admission to the SOS Children's Village in 2002 due to neglect

- **Abnormalities at school or in training**

Examples from the results:

➡️ Attendance at special schools between 2005-2015

➡️ Good performance in practical subjects, difficulties in theory

➡️ Customized worker training in horticulture

4. Family history

The analysis results from the genogram and the family history are consistent with Hildenbrand's theory (2024). In the analysis, three relevant hypotheses were derived using the systemic hypothesis model, which underpin the necessary inclusion of family history for the diagnosis of a social-emotional handicap:

- Circular reproduction of excessive family demands,
- Insecure attachment patterns and illness as a survival strategy and
- Transgenerational transmission of stress

The analysis of these hypotheses shows that a multi-generational approach is essential. If a diagnosis is made without reference to the family history, there is a risk of a one-sided behavioral analysis, which, according to Klaes, ends in inappropriate

measures for those affected. Particularly regarding Manuel's case presentation, it is clear to see that recording the family system across three generations is of crucial importance (Hildenbrand, 2024, Chapter 1, *Genogram work: The question of definition*) in order to develop a comprehensive understanding of the development of a social-emotional handicap. In Manuel's family history, patterns of insecurity, emotional distance and inadequate care are established over several generations, which in turn are reinforced in subsequent generations. The grandparents on the mother's side were emotionally unavailable, which was reflected in the neglect and lack of stable attachment experiences in the mother's childhood. The father's grandparents are not even known, only his childhood, which he experienced as complicated, was described. This circumstance also indicates a lack of stable and responsive attachment experiences. These patterns continued in the upbringing of their own children, characterized by excessive demands, a lack of sensitivity and a lack of structure. Manuel therefore appears to have been susceptible to a dysregulation of stress from birth due to epigenetic changes, while at the same time lacking a compensatory attachment figure from the outset, laying the foundation for a social-emotional handicap at birth.

In addition, the analysis of the genogram illustrates the transgenerational transmission of illness as an identification pattern. Every generation has physical and mental ailments ranging from asthma and cancer to heart disease and depression. The family seems to identify itself predominantly through these descriptions of illness, without these descriptions being counterbalanced by positive resources. The result of this transgenerational transmission led to Manuel himself being affected by a serious cancer at a time of overwhelm and stress. According to the systemic hypothesis model, his illness is not a maladaptation but should be seen as an acquired survival strategy in response to a crisis. Without the findings from the family history, a completely different picture of Manuel would have emerged, which would have massively impaired the understanding of him, his illness and appropriate measures. If he had been left to his own devices instead of retreating into a protected environment, the course of his illness would probably have been less favorable.

However, the investigation of the respective family history should not only be based on a deficit orientation but should also explicitly look for resources in line with systemic perspectives. A person's personality develops both from good care and responsive attachment in childhood as well as from valuable identification with the family of origin (Johnson et al. 2022, p. 14). To be able to represent themselves individually and confidently in our society, a person needs valuable resources that they can fall back on if necessary. If, instead, they only have deficient identification characteristics at their disposal, they act accordingly, e.g. by acting out illnesses or aggression, which often ends in isolation or a constant clash with society. This can be clearly demonstrated by Manuel's story: In his case of need - left to his own devices in his own apartment without suitable coping strategies - he fell back on familiar and traditional patterns: neglect and illness.

These findings clearly emphasize the importance of family work. On the one hand, it is needed to understand the origins and effects of social-emotional handicaps, and on the other hand, in the best-case scenario, it helps to discover valuable resources that support the personal development of the person concerned.

Creation of a genogram

The systemic analysis of Manuel's family relationships was created using a genogram. This visual tool illustrates the intergenerational bonding patterns, records possible stresses and strains, but also identifies family resources as a counterbalance. Hypothesizing based on this model enables a more precise diagnosis and the development of targeted support measures. For this reason, it should also be used as a basis for diagnosing social-emotional handicaps to complement the previous assessment indications.

Conclusion

The comprehensive analysis of Manuel's case illustrates the necessity of a systematic organization and management of information processes and thus underpins the arguments of Yin (2003, chapter 3) and Klaes. The working hypothesis is

effectively answered through the systematic identification via result- and theory-oriented derivations, categorization and structuring of the relevant information. The framework model, which provides for the systematic collection and analysis of relevant data, ensures that all necessary information is available for the development of customized action strategies. This leads to both improved diagnostic accuracy and more effective, individualized care planning, which in turn sustainably increases the quality of life of those affected. The proposed framework model promotes the development of a common language and provides a clear orientation that enables all professionals involved to collaborate and communicate consistently across disciplines and successfully, which according to Brunner et al. (2022, p. 6) and Klaes could significantly improve the quality of care and efficiency of information exchange.

Brief description of the diagnostic model:

1. Recording the current situation
    - emotional,
    - cognitive
    - Physical
2. Curriculum vitae based on a timeline starting with the mother's pregnancy
3. Symptom history
4. Family history

With the help of this framework model, it is possible to precisely determine the point in the social-emotional development of the person being assessed, regardless of their cognitive and physical development.

The answer to working hypothesis H1 leads to logical conclusions that lead to the answer to the second working hypothesis H2:

4.4.2 H2: Which target definitions are based on the personal resources of the individuals?

Answering hypothesis H2 requires a differentiated consideration of the results, considering the findings from the interview with Klaes and the answer to H1. A key

finding of this exploratory analysis is that traditional definitions of the goals of care based on personal responsibility and self-determination are not suitable for those affected by early childhood deprivation and are in line with the theoretical assumptions of Klaes and Johnson (2016b, p. 94). Instead, it is becoming clear that an individualized, adaptive definition of goals is necessary, which, according to Klaes, considers the specific developmental conditions, neurobiological, biographical and social influencing factors.

Hypotheses H2a and H2b

It is evident that the original hypotheses H2a and H2b, which assume a quantitative connection between the experience of deprivation, emotional development and need for help, cannot be upheld in this form. The original working hypotheses were designed to measure differences between two individual cases. However, as only one individual case was included in the research process for various reasons, a causal quantitative approach is no longer meaningful.

Originally, it was also planned to use an additional questionnaire to record the actual need for help in detail. However, as the necessary approval for its use was not granted despite inquiries to the responsible persons - there was no response to multiple requests - it could not be included in the study.

Due to the process character of qualitative research, a change of direction in the research process is legitimate as long as it remains transparent. According to Lamnek (2010, pp. 21-24), qualitative research is characterized by its flexibility and openness, which makes it possible to adapt to unexpected developments in the research process. Instead of rejecting the hypotheses, they are therefore used below as a starting point for a differentiated consideration of the complex relationships between deprivation, emotional development and need for help and interpreted unconventionally based on the descriptive results.

Interactions between emotional development and goal achievement

Hypotheses H2a and H2b were originally considered separately, but the results suggest that they cannot be interpreted in isolation. Early childhood deprivation not only influences emotional development (H2a), but also has a direct impact on long-term adaptability, the organization of everyday life (H2b) and ultimately on realistic goal setting (H2). These aspects are closely interwoven and, according to Klaes, form a dynamic adaptation process. Consequently, emotional development and the ability to self-regulate not only influence individual goal achievement but also determine the realistic possibilities for goal definition and thus once again contradict the current pedagogical orientation.

This is particularly evident in Manuel in the area of emotion regulation: he has great difficulty in dealing with anger (SEK-ES: M = 2.04 out of 4) and stress (SEK-ES: M = 1.54 out of 4), while he can cope well with sadness (SEK-ES: M = 4.0 out of 4) from a secure connection according to his own feelings and has developed positive feelings (SEK-ES: M = 4.0 out of 4) despite feeling stress (How strong was the strongest level of stress/tension that you experienced in the last week? M = 9 out of 10) has developed positive feelings (SEK-ES: M = 4.0 out of 4). Neurobiological findings support these assumptions: For example, research on the effects of oxytocin, dopamine and serotonin (Müller-Oerlinghausen et al., 2021, p. e36; Uvnäs-Moberg, 2016, p. 54) shows that attachment-oriented and co-regulatory measures not only have an emotionally stabilizing effect, but also create the neurochemical basis for learning, development and well-being. Oxytocin, which is a central neurotransmitter for social bonding, contributes significantly to the reduction of stress and, according to Klaes, supports adaptive regulatory mechanisms regarding stress regulation via the HPA axis. Especially for those affected like Manuel, whose development is characterized by insecure attachment experiences, transgenerational neglect patterns, a lack of resources other than illness and epigenetic stress regulation changes, it is imperative that the definition of goals is based on these principles to avoid further and chronic excessive demands and to enable long-term participation in the first place.

Dynamic goal setting in the field of tension between normalization pressure and realistic processes

The results make it clear that target definitions should not primarily be geared towards autonomization, as current pedagogy demands, but rather towards enabling social participation in professional and social life in the first place. This requires support measures to be tailored to the individual's needs and limitations.

Manuel's difficulties with closeness and emotional openness in relationships (BoBi: M = 2.88 out of 7), coupled with a need for security (BoBi: M = 4.83 out of 7), illustrate the need to take his individual needs and resources into account when setting goals. In addition, further descriptive results show that Manuel, with a high social sensitivity (M = 7 out of 8), perceives the finest social signals, but hardly orients his behavior to the expectations of others (Other directedness: M = 2 out of 9). At the same time, his high Extraversion (M = 5 out of 7) indicates that he actively participates in social groups, while his moderate tendency to self-presentation (M = 5 out of 11) suggests that he consciously controls his behavior in certain situations. This combination could explain why he presents himself confidently to the outside world but is quickly overwhelmed in unexpected or conflict-laden situations.

The biographical analysis based on the genogram shows that the attempt to support a *normal* lifestyle leads to excessive demands and massive consequential damage. A particularly serious example is Manuel's attempt to live independently, which not only resulted in a significant deterioration in his quality of life but also led to a serious health crisis. After Manuel moved into his own apartment with fewer hours of care at his own request (→ self-determination) in November 2022, it quickly became apparent that he was massively overwhelmed with the organization of his entire everyday life. Disorder to the point of physical and residential neglect, poor financial decisions and social conflicts with neighbors led to him becoming increasingly isolated and massively neglecting basic needs such as personal hygiene. These stresses ultimately contributed to his health taking on life-threatening proportions: In September 2023, he was diagnosed with testicular cancer, which had already spread to

his abdominal cavity. Research on stress regulation (Charmandari et al., 2005, p. 267; Sapolsky et al., 2000, p. 70) shows that a chronically elevated cortisol level is associated with an increased risk of serious health problems, which is why a connection between the massive stress load caused by the independent living situation and the disease must at least be considered as a favoring factor (Steindorf & Blickle, 2024). This view also corresponds to Hildenbrand's (2024, Chapter 1, *What is special about the concept presented here?*) approach that illness can represent an attempt to find a solution to a crisis. Without reintegration into sheltered housing, Manuel's condition would probably have deteriorated drastically according to his doctors and his survival would have been seriously threatened. The analysis of the biographical development and the discrepancy in the descriptive data collected and the development reports makes it clear that a realistic objective must not be geared towards forced independence or the inadequate self-assessment and self-perception of those affected, but towards long-term stable support that enables social participation in the first place.

Co-regulation as a strategic objective

A key finding is that sustainable goal achievement is significantly dependent on stable, long-term co-regulation mechanisms. In the interview, Klaes points out that goals should not be aimed exclusively at compensating for deficits, but rather at promoting individual resources. While traditional models define independence as the ultimate goal, the findings suggest that establishing an adaptive, resource-oriented support framework should be recognized as a legitimate goal in its own right.

Alternative definition of autonomy as a development goal

Consideration of previous findings makes it clear that autonomy needs to be redefined. Instead of the prominent ideal of independence in the form of self-determination, the ability to participate functionally in society and work within a supportive framework should be recognized as a realistic goal. These findings are consistent with neurobiological studies that indicate that early childhood stress can lead to permanent limitations in the ability to self-regulate (Klaes & Johnson, 2016b, pp. 7-8). Accordingly, target definitions should be based less on external and idealized

standards and more on the individual social-emotional developmental stage of those affected instead of chronological age.

Summary of the target definitions in response to H2

The analysis shows that goals must be individually adapted to find a balance between personal resilience and social participation. Instead of a normative and ideological orientation towards autonomy and personal responsibility, goals should be defined in such a way that they enable long-term stability and participation in the first place, as Table 8 shows by way of comparison.

The analysis also shows that Manuel acquired and internalized an insecure attachment pattern at an early age, presumably also due to epigenetic biases and transgenerational transmission. His development appears to have come to a standstill at a certain point - roughly at the level of a toddler exploring from a secure attachment. This developmental standstill, which obviously could not be restarted over time despite years of pedagogical intervention, has in turn led to him having a considerable and permanent need for help in organizing his entire everyday life. Although hypotheses H2a and H2b could not be calculated quantitatively, they could be answered satisfactorily in terms of qualitative interpretation.

It is important to mention once again that the goals in Manuel's case are based on the emotional development age instead of the actual age! This finding is in line with the theoretical approach of Klaes and Johnson (2014) and the findings from the expert interview.

Table 8 : Alternative target definitions for people with social-emotional disabilities

Target area	Traditional objective	Modern objectives
Autonomy	Complete personal responsibility and self-determination	Structurally supported participation
Emotion regulation	Self-regulation as the ultimate goal	Co-regulation by constant caregivers

Work integration	Independent working ability	Protected, adapted working environments
Housing situation	Independent living	Assisted living with individual customization
Social integration	Independent relationship management	Attachment-oriented social support

The answer to H3 follows from these findings:

4.4.3 H3: Which care framework is relevant for this opportunity for participation based on the objectives identified?

The answer to hypothesis H3 is based on the key findings from H1 and H2, which integrate early attachment experiences, early stress experiences and transgenerational influences on social-emotional handicaps on the one hand and the need for a resource-oriented and individual definition of goals on the other. Based on these results, a suitable care framework is defined below that meets the special requirements of people with social-emotional impairments and enables long-term social and professional participation.

Attachment orientation as the foundation of a stable care framework

The results of H1 show that, alongside epigenetic factors, early childhood experiences of deprivation play a central role in the development of social-emotional handicaps, especially in sensitive developmental phases. Insecure attachment experiences in particular lead to a long-term impaired ability to regulate stress, develop stable attachments and various other serious symptoms (Klaes & Johnson, 2016b, pp. 6-7). Accordingly, according to Johnson (2014) and Klaes, the care framework must be designed in such a way that it integrates compensatory mechanisms that ensure stabilization through constant and reliable attachment offers. It makes sense to implement a permanent attachment care system that includes a fixed and continuous attachment figure and thus creates the basis for co-regulation and emotional security (Klaes & Johnson, 2016b, pp. 7-10).

Neurobiological studies confirm that stabilizing attachment figures have a direct stress-reducing effect. Oxytocin in particular contributes to the regulation of emotional states and the promotion of well-being and social interactions (Müller-Oerlinghausen et al., 2021, p. e36; Uvnäs-Moberg, 2016, p. 54). In addition, serotonin and dopamine support cognitive plasticity, creating an environment conducive to learning (Wert-Carvajal et al., 2022, pp. 2-7).

Co-regulation as a strategy for coping with stress and stabilization

H2 emphasizes that traditional goals that aim to achieve independence as soon as possible are not only unsuitable for people with social-emotional disabilities but can even be detrimental to their health. The answers to H1 and H2 confirm this based on Manuel's health and emotional reactions to moving into his own home with less support services. It follows that continuous co-regulation is necessary to keep the stress level stable and enable positive development processes. This means that care should not be merely reactive to crises and deficits but, according to Klaes, should focus preventively on promoting secure and attachment-oriented services.

The practical implementation of this concept according to Klaes requires:

- Forward-looking and long-term care that not only focuses on compensating for deficits, but also actively creates positive bonding opportunities.
- The use of interventions close to the body, such as tactile stimuli and basal stimulation (Fröhlich, 2015), which have been shown to contribute to the release of stress-reducing neurotransmitters (Müller-Oerlinghausen et al., 2022, p. e36).
- A structured daily routine with predictable processes and rituals to minimize uncertainty, reduce anxiety and enable functional and reflective autonomy within a protected framework.

Structured environment as a prerequisite for functional participation

The case analysis of Manuel illustrates that an abrupt change to an unstructured environment without sufficient support can lead to destabilization and damage to

health. In particular, his own staged attempt to live independently not only led to social isolation and increasing neglect, but possibly also to a deterioration in his physical health due to chronic stress (Ising, 2011; Steindorf & Blickle, 2024).

This means that a promising support framework should have the following structural features:

- Predictable and regular daily structures that offer clarity, orientation and stability.
- Individually adapted living and working environments that provide continuous support and care.
- Flexible care concepts that are adapted to the social-emotional stage of development instead of rigid decisions based on chronological age (Klaes & Johnson, 2016b, pp. 3-4).

Integration of interdisciplinary and systemic approaches

The results of H1, H2 and the results of the expert interview show that support is not only a question of individual support but must also consider the institutional framework conditions. Traditional models of vocational integration, e.g. the 4-stage model of the Bundesagentur für Arbeit (2023), are often not feasible for people with early childhood deprivation experiences, as they require a degree of self-organization and active participation in the integration process, which can only be present to a limited extent in this target group. It is therefore necessary to establish alternative models that combine continuous support with realistic requirements.

In concrete terms this means, according to Klaes:

- Close dovetailing between socio-pedagogical and vocational integration to avoid under- or overburdening.
- The use of systemic methods such as genogram analyses to identify transgenerational stress patterns at an early stage and to work on them in a targeted manner by focusing on resources.

- Close cooperation between social institutions, medical professionals and educational institutions to ensure the long-term stabilization of those affected.

Summary of the required support framework

Based on the knowledge gained, an optimized care framework for people with social-emotional handicaps can be outlined as follows (Table 9):

Table 9 : A dynamic, resource-oriented care approach

Goals	**Support element**
Binding security	Implementation of a reference support system
Co-regulation	Continuous support from trusted caregivers
Structured environment	Daily structure with predictable routines
Cognitive and social stabilization	Promotion of neurotransmitters through physical interventions adapted to the emotional developmental age
Professional participation	Adapted working models with long-term support
Interdisciplinary networking	Cooperation between social pedagogy, medicine and educational institutions

The joint consideration of H1, H2 and H3 makes it clear that the key to the social and professional participation of people with social-emotional handicaps does not lie in an idealized and unreflected demand for independence or autonomy, but in the creation of stable and predictable care structures based on the emotional developmental age, as Klaes postulates in the interview. Co-regulation, attachment security and interdisciplinary networking form the essential pillars of an effective care framework that not only compensates for deficits, but also specifically seeks out and utilizes resources. Care should be seen as a dynamic process, which adapts flexibly to individual needs and opens long-term prospects for meaningful and sustainable participation.

4.5 Limitations of the research work

Despite the methodological care and the scientific claim, this study has various limitations that restrict the interpretation and generalizability of the results. These can be summarized as follows:

1. Individual case perspective

The study is based on a qualitative analysis of a single case, which severely limits the transferability of the results to a broader population. The individual life circumstances and the unique developmental history of the test person have an enormous influence on the results despite the longitudinal section, so that generally valid statements can only be made with reservations. The lack of a comparison group reinforces this limitation (Midgley, 2006, pp. 137-138).

2. Subjective influences of the documents

The data collected comes from various sources and was written by different people. As a result, the documents are characterized by the subjective perception and interpretation of the professionals involved, which could have led to possible distortions in the terminology used (Appinio Research, 2025).

3. Retrospective approach

Much of the data analyzed is based on documentation, which can be influenced by a lack of direct traceability. This can limit the precision of the analysis and lead to a selective representation of the development history (Appinio Research, 2025).

4. Methodological challenges of written surveys

The use of written interviews entails specific methodological challenges. The lack of opportunity for interaction precludes spontaneous follow-up questions and non-verbal cues, which can limit the quality of the data collected (Schiek, 2022). In addition, the written form can lead to considered, rephrased answers that reflect less spontaneous or affective reactions.

5. Unexpected switch to qualitative interpretation of the descriptive data due to lack of comparative values

Originally, a quantitative analysis of hypotheses H2a and H2b was planned to investigate a cause-and-effect relationship ("the earlier, the greater"). During the research, however, it turned out that the data collected did not allow any statistically significant statements to be made due to the unplanned small sample size and the lack of adequate comparative values as well as the lack of approval for a specific questionnaire. This made it necessary to adapt the research process (Lamnek, 2010, pp. 21-24) by interpreting the hypotheses qualitatively using the descriptive results of the questionnaires, which represents a slight deviation from the original research design. The hypotheses were not rejected, as the data collected provided valuable qualitative insights despite their quantitative limitations.

Despite these limitations, the study offers valuable insights into the long-term development of the test person and illustrates the relevance of individual, contextual and institutional factors.

Conclusions and Recommendations from Chapter 4

This chapter describes the use of an MMR approach that integrates qualitative and quantitative research methods. The qualitative methods dominate, emphasizing the exploratory nature of the study. The focus was on the analysis of attachment disorders in the context of social-emotional handicaps and their serious effects on the subject's ability to cope with everyday life, social interaction and long-term development prospects.

Chapter 4 provides a detailed and transparent description of the methodological approach and the entire research process. Both qualitative and quantitative methods were systematically applied to gain as holistic an understanding as possible of Manuel's social-emotional development. The methodology includes a detailed analysis of detailed development reports, school reports and specialist medical certificates and is supplemented by a systemically created genogram according to Hildenbrand (2024) and a guided interview based on Helfferich (2011) with Winfried Klaes, one of the

founders of the term "social-emotional handicap". In addition to the document analysis, the genogram examined the individual development of the case to date and led to hypotheses about the transgenerational patterns of attachment, neglect and stress in the family. The interview, in turn, helped to identify possible indicators of the initial problems and, in particular, the associated consequences for the target options and the necessary care framework for those affected. This methodical approach enabled the holistic recording of family dynamics, attachment structures and their influence on Manuel's individual development. The content-structuring qualitative content analysis according to Kuckartz (2020, p. 132) was applied in addition to the evaluation of the interview to systematically categorize existing development reports, certificates and a specialist medical certificate through a document analysis and to work out patterns on the topic. Both deductive categories, which were derived from existing theories on attachment disorders and social-emotional impairments, and inductive categories, which emerged directly from the analyzed material, were formed.

In the quantitative part, standardized survey instruments were used, namely questionnaires such as the BoBi, the SEK-ES and the SMSC, which provided a wide range of data on emotional regulation, social skills and attachment style (Ebert et al., 2014; Neumann et al., 2007; Stürmer & Collani, 2009). These data were evaluated through descriptive analyses to complement and triangulate the results of the qualitative analysis (Creswell & Clark, 2011). Despite complications with the causal formulations of H2a and H2b, the MMR strategy enabled a comprehensive investigation of the complex interactions between transgenerational stress and individually acquired attachment mechanisms. The combination of retrospective document analysis, structural qualitative interpretation and quantitative recording of subjective behavioral characteristics provided a differentiated picture of the underlying causes and consequences of attachment disorders. This made it possible to identify not only the specific challenges of the individual case, but also relevant starting points for the further development of educational measures.

The study showed the course of Manuel's social-emotional development and highlighted the far-reaching effects of previous attachment experiences as well as existing family patterns and structural conditions on his current life situation. The results show that transgenerational patterns of neglect and attachment insecurity, as Klaes postulates in his interview, contributed significantly to the emergence of the social-emotional handicap and the limitation of the development opportunities of the individual case under investigation, particularly in the first years of life, and led to a permanent insecure attachment pattern. This specific attachment problem requires a special care concept. The analysis of the genogram, the interview and the biographical documents explains how structural and individual factors influence the subject's development and shape his challenges. The effects of these patterns are clearly recognizable in Manuel's deficits in emotional regulation and social interaction. Especially in stressful or unpredictable situations, the inability to regulate emotions appropriately is evident, leading to impulsive reactions, social isolation and persistent neglect. These limitations have a direct impact on participation in social life and his health and demonstrate the need for ongoing support.

The role of stable attachment figures is emphasized as particularly important in this context (Johnson, 2014; Klaes & Johnson, 2016b, pp. 7-10). Attachment figures not only offer a reliable source of emotional support but, according to Klaes, also promote co-regulation and create a safe environment in which social skills can be developed according to the individual's stage of development. According to the interviewee Klaes, individually adapted support measures are equally important, which are not only tailored to the specific needs and potential of those affected but should primarily be based on their emotional developmental age rather than their chronological age in order to improve their quality of life in the long term.

A key outcome of the study is the development of a framework model that serves as a systematic basis for the creation of target options and the establishment of a structured care framework. This model developed from the results integrates a structured communicative approach and effective management of information

processes to holistically record and analyze the biographical, social, emotional, cognitive and physical contexts of the test person. It not only creates a basis for interdisciplinary collaboration and transparent communication between professionals but also supports the development of coherent and goal-oriented implications. The framework model lays the foundation for the formulation of realistic and feasible target options that address the specific needs of those affected according to Klaes. At the same time, it serves to design a flexible but stable care framework that meets the individual requirements of those affected and promotes their participation in social life in the long term. This model therefore represents an integrative and practical approach that combines both a scientific basis and practical applicability in the care of people with social-emotional impairments.

The study also revealed significant methodological limitations. The individual case perspective and the lack of a comparison group limit the generalizability of the results (Midgley, 2006, pp. 137-138). In addition, it turned out that subjective assessments in development reports and school reports do not always allow an objective reconstruction of the subject's development (Appinio Research, 2025). The written responses to the interview also had to be considered (Schiek, 2022). The collection of quantitative data in a single-case survey also proved to be methodologically challenging, as external validity and comparability are limited. In addition, the interpretation of hypotheses H2a and H2b ("the earlier, the greater") was not causal, but only descriptive, which makes it necessary to formulate precise hypotheses for future research.

In the following section, the conclusions will be presented in detail, containing the results obtained as well as specific recommendations regarding the working hypotheses and the objectives and tasks defined in the introduction. These conclusions will not only summarize the immediate findings but also identify possible development trends and perspectives to outline future research directions. In addition, the conclusion will be seen as an answer to the overarching research question.

CONCLUSION

This research project examined the management of information processes in the context of social-emotional handicaps by means of an individual case study. A central objective was to identify and describe indicators that would enable a more precise analysis of the phenomenon, with the aim of supporting affected individuals in participating in social and professional life. Accordingly, the overarching research question was:

> **What procedures are necessary to enable individuals with a social-emotional handicap to participate in society according to their individual capacities?**

Theoretical and practical findings revealed that early experiences of total deprivation have profound and long-lasting effects on the emotional and social development and life trajectories of those affected. Current educational approaches that emphasize self-determination and personal responsibility - often adopted uncritically and idealistically, as Prang (2024, pp. 185-186) notes - overwhelm this target group and fail to meet their needs. According to Klaes, such approaches often result in chronic overload, which, due to insufficient stress regulation capacities, further destabilizes affected individuals. This contributes to heightened dysregulation, increased stress, social withdrawal, and health problems (Charmandari et al., 2005, p. 267; Klaes & Johnson, 2016, p. 100).

Instead, Klaes and the findings of this study point to the need for individualized care strategies based on co-regulatory and attachment-oriented approaches. A suitable care framework should include consistent caregivers, a predictable and structured environment, physically grounding methods to support stress regulation, and interdisciplinary collaboration across all involved professionals. This approach should extend to all areas of life relevant to those affected. The study's findings demonstrate that such a care framework - along with its associated components - directly supports emotional stability, social interaction, physical and emotional health, and social participation.

One of the main goals of this dissertation was the results-based development of a framework model for the precise identification of relevant data, both to detect the presence of a social-emotional handicap and to derive tailored support measures. The model developed through the analysis of Manuel's case also integrates classical attachment theory (Bowlby, 2021; Ainsworth et al., 2015) and current neuroscientific insights (Klaes & Johnson, 2016; Rass, 2014; Strüber, 2016; Uvnäs-Moberg, 2016). Four central components emerged:

1. Assessment of the current situation - Analysis of emotional, cognitive, and physical factors to determine the individual's actual developmental level and current challenges.
2. Ontogenetic life course analysis - Chronological reconstruction of developmental milestones, early attachment experiences, educational and vocational history, and critical life events.
3. Symptom history - Documentation of psychological and medical interventions, social support services, and behavioral patterns in childhood and adolescence.
4. Family history and transgenerational influences - Analysis of epigenetic and intergenerational attachment patterns to identify formative factors contributing to emotional and social difficulties from birth onward.

The findings underscore that recognizing a person's emotional developmental age - rather than relying on their chronological age - is essential for designing adequate care plans and environments. The proposed framework allows practitioners to accurately determine the developmental level at which a person is operating, thereby enabling the implementation of tailored interventions and realistic goal setting. By applying co-regulatory and attachment-oriented methods, the potential for meaningful social participation can be significantly increased for the affected individual.

This dissertation therefore emphasizes the urgent need for a paradigm shift in the care of individuals with social-emotional impairments - moving away from rigid autonomy-focused frameworks toward an approach grounded in attachment, co-

regulation, and developmental attunement. This shift holds the promise of not only improving individual outcomes but also enhancing the long-term effectiveness and ethical foundations of professional care in this field.

Theoretical and practical implications

Theoretical Significance: The findings of this study confirm Bowlby's (2021, p. 98) foundational assumption that early attachment experiences have long-term consequences for social and psychological development. By integrating current neuroscientific research - particularly from Klaes and Johnson (2016a, 2016b), Rass (2014), Strüber (2016), and Uvnäs-Moberg (2016) - the study highlights that insecure early attachment experiences and chronic stress can result in structural alterations to brain architecture. According to Klaes and Johnson (2016a, 2016b), as well as Nelson et al. (2014), these changes, especially during the first two years of life, can become irreversible. Although some theorists such as Rass (2014, pp. 24-25) and Schore (2003, p. 10) emphasize the brain's plasticity - particularly in the right hemisphere - despite early deprivation, the present findings lend further support to the irreversibility thesis: such deficits cannot be corrected solely through cognitive or therapeutic interventions. Instead, they demand adaptive emotional and social support systems that are long-term in nature and not aimed at superficial or short-term improvements. The model developed in this study addresses this gap by offering a basis for modern, individualized interventions tailored to the actual needs of the affected individuals, moving away from idealized pedagogical paradigms.

Practical Relevance: A key insight of this study is that interventions must be aligned with a person's emotional developmental stage, not their chronological age. This understanding helps explain why pedagogical approaches centered on autonomy may contribute to the rising incidence of psychological distress among children and adolescents. As outlined in the introduction, age-inappropriate autonomy goals can lead to chronic overload and, in turn, to lasting developmental harm. The study shows that establishing a secure foundation - through consistent emotional support, a stable environment, and a structured daily routine - is essential for enabling meaningful

participation in society. According to Klaes and Johnson (2016a, 2016b), individuals with social-emotional handicaps who operate at an early developmental stage in terms of self-regulation require an educational environment modeled on early-childhood and physically grounded care approaches. Such settings must include reliable caregivers, predictable and ritualized daily routines, developmentally appropriate communication, sensory and motor interventions that enhance body awareness and emotional regulation by stimulating oxytocin production. The proposed framework model thus supports a much-needed paradigm shift in education and social care and helps lay the foundation for a shared professional language, which Klaes sees as essential for future practice.

Social Implications: As noted throughout the dissertation, rising rates of psychological and social-emotional distress signal the urgent need for new approaches in care and support systems. As the statistics presented in the introduction already suggest, these rising numbers point not only to threatened social participation among those affected, but also to significant socioeconomic consequences. Increasing workplace absenteeism due to mental health issues leads to escalating healthcare costs, which in turn fuels public frustration and contributes to a disturbing rise in societal aggression. This study's individual case analysis reveals aggression as a symptom of chronic overload, reinforcing the importance of early and appropriate intervention - not just for the individual's benefit but for society at large. More effective support systems would help stabilize individuals with social-emotional disabilities, enabling care professionals to feel more confident in their roles. This leads to improved working conditions, fewer absences, and ultimately a more resilient system. In this context, it is essential that social-emotional disabilities be recognized as a formal disability in accordance with §2 (1) SGB IX, as advocated by Klaes and Johnson (2016a, 2016b). Given their persistent and irreversible nature, these impairments cannot be addressed with standard interventions. A reclassification would open the door to attachment-based support models, reduced psychological burden, improved social integration, enhanced long-term participation in work and society. In short, such a redefinition would give education and care professionals more tools and greater flexibility, ultimately increasing job satisfaction and effectiveness in their work.

The study also underscores the urgent need for interdisciplinary collaboration between social work, psychology, education, and medicine. To address the complex realities of those affected, we must develop holistic, cross-sectoral approaches supported by a shared vocabulary - one that enables institutions, practitioners, and policymakers alike to recognize and respond to the unique needs of this vulnerable population.

Methodological reflection

Although the study provided valuable insights, it has some methodological limitations that need to be considered as a whole:

➡️ Individual case perspective: According to Midgley (2006, pp. 137-138), the generalizability of the results is limited by the individual case. However, since this study not only analyzed cross-sectional, selective observations, but also temporal developments over more than a decade using the development reports and the genogram evaluation, and these were supplemented by contextual knowledge about the phenomenon under investigation through the interview, it corresponds to Mayring's idea of the longitudinal structure of individual case studies, in which trends and developments can be identified and generalized for argumentative purposes (Mayring, 2007). Wrona (2007) also supports this idea, according to which "the 'basic idea' of generalization can nevertheless be applied to qualitative research" [30], even though the "findings that result from qualitative research tend to be situational in nature. Their results can only be generalized to specific situations" [31]. (Wrona, 2007, p. 18). The findings obtained and argumentatively interpreted in this study cannot therefore be applied to the entire public, but they can presumably be cautiously applied to similar situations, phenomena and lifeworld contexts.

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30 Source text: „dennoch der „Grundgedanke" der Generalisierung auf die qualitative Forschung übertragen"

31 Source text: „Befunde, die aus qualitativer Forschung resultieren, tendenziell eher situativen Charakter aufweisen. Ihre Ergebnisse sind nur auf bestimmte Situationen bezogen generalisierbar."

➡ Retrospective data analysis: The analysis largely concerned historical documents and genogram data, which were evaluated retrospectively. Such an evaluation could be distorted by the subjective assessments of the various authors. Future research should therefore additionally use prospective longitudinal studies to track developmental trajectories in real time and avoid potential biases due to retrospective assessments (Appinio Research, 2025).

➡ Limited opportunities for comparison: As no control group was used in the study, direct comparisons with other affected individuals are not possible (Renner et al., 2012, pp. 89-101). Clear causal relationships between early childhood deprivation and the long-term development of social-emotional handicaps and their consequences could not be investigated.

➡ Formulation of the research questions H2a and H2b: A further methodological limitation, which is due to the processual nature of qualitative research, concerns the specifics of research questions H2a and H2b. The original assumption that the extent and duration of early childhood deprivation correlate linearly with the severity of social-emotional development opportunities and the effects on the duration and breadth of the support offered for everyday life ("the earlier, the more severe") proved to be too deterministic during the research. Due to the individual case perspective, it was not possible to calculate causality between these factors, which is why a qualitative discussion and interpretation of the descriptive results was carried out. A more appropriate hypothesis could have been formulated instead:

H2a: Manuel's case shows that an early and pronounced experience of deprivation goes hand in hand with limited emotional development opportunities.

H2b: The case of Manuel suggests that an early and strong experience of deprivation leads to an increased and permanent need for help with the entire organization of everyday life.

These formulations would have avoided generalizing statements and instead contained the explorative observation in the case under investigation. Alternatively,

they could also have been formulated as exploratory research questions to leave open whether the assumptions are confirmed in the case:

H2a: To what extent can a connection between early childhood deprivation and restricted emotional development be identified in Manuel's case?

H2b: What evidence is there in Manuel's case that early childhood deprivation is associated with an increased and lasting need for help in everyday life?

These formulations would have focused the study on a purely explorative design and would probably have been more appropriate for this research work.

Despite these limitations, the study led to valuable findings based on which further scientific research should follow. In particular, the framework model developed, which is based on the argumentative combination of the results and the theoretical framework, provides valuable insights that lead to individual and scientifically justified strategies for dealing with affected persons. Critical reflection on the methodological limitations therefore opens new perspectives for future research.

Implications for future research

Based on the findings obtained, the following research desiderata arise. Since the present research work is based on retrospective long-term data, methodological extensions and supplementary study designs are particularly necessary to increase the generalizability and applicability of the findings.

1. Long-term studies to validate the results

Prospective studies that continuously collect data over several years could examine the stability of the positive effects of attachment-oriented care strategies in systematic long-term support for those affected and identify possible suggestions for improvement or unexpected developmental processes. Longitudinal designs with repeated measurement points would be helpful, for example, to map development processes in a differentiated way.

2. Comparative studies to increase generalizability

Comparative studies with larger and more diverse samples and the integration of control groups would be helpful in establishing causal relationships between care strategies and long-term developmental outcomes. In particular, randomized controlled trials or quasi-experimental designs that describe and minimize possible confounding variables would be conceivable here.

3. Integration of neurobiological research methods

It would also be interesting to record the neurobiological and physiological effects. Neuroscientific methods such as functional magnetic resonance imaging or electroencephalography could be used for visualization purposes to show the extent to which experiences in care contexts have long-term effects on neuronal structure and function. Biomarker analyses, such as a supplementary recording of stress hormone levels to measure cortisol, could also be informative for the physiological effects of attachment security and insecurity in different situations. Of course, ethical considerations must always be considered.

4. Practical testing and evaluation of the developed framework model

Another important step is the testing of the framework model in real care contexts. Practical evaluation studies in which the model is systematically made available in educational, psychological or social institutions and tested for effectiveness and practicability would be conceivable. Such studies should particularly consider and consider the subjective experiences of professionals and those affected.

1. **Cultural and gender-specific differences in the development of social-emotional handicaps**

Another interesting aspect of research that should be investigated is whether and to what extent social-emotional handicaps manifest and develop differently in different cultural contexts. Cultural norms and parenting practices have a significant influence on the social and emotional development of children, meaning that attachment-oriented care strategies may have different effects in different cultures. Current research points

to the importance of a systemic perspective on attachment processes that goes beyond the classic dyadic relationship between child and caregiver (J. Johnson, 2024). In particular, comparative cultural studies indicate that attachment styles and practices are strongly influenced by social norms and moral structures, collective parenting models and historical developments. These findings could be investigated in further research studies.

At the same time, the question arises as to whether there are gender-specific differences in the emergence, development and manifestation of social-emotional handicaps. It is conceivable that educational practices or social expectations are projected differently. For example, projections onto boys and girls could be different, resulting in them developing different coping strategies for emotional challenges, which in turn have an influence on long-term social and psychological adjustment processes. Comparative intercultural studies and analyses of gender-specific developmental trajectories could help to obtain a more differentiated picture of the influencing factors and develop more targeted support measures. The inclusion of a multidisciplinary perspective, as proposed in the systemic approach to attachment research according to J. Johnson (2024), could help to better grasp the complexity of these relationships and in turn derive practice-relevant findings for the educational landscape.

2. Investigation of attachment disorders in prisons

Another interesting field of research would be studies in prisons. It would be exciting to investigate whether many inmates exhibit characteristics of early attachment disorders or social-emotional handicaps in their biographies and what effects these had on their careers. Such studies would provide important insights into whether there are correlations between attachment disorders and later delinquency-related behavior, and possible starting points for later resocialization could be derived from this.

Final conclusion and significance of the work

The present study illustrates a twofold necessity: an individual and holistic view of the social-emotional handicap and structural reforms in care and society. The currently prominent focus on autonomy and personal responsibility, which has found its way into everyday care without reflection, does not apply to this particular target group and must be urgently replaced by attachment-oriented, co-regulatory concepts.

The information management model developed from this discrepancy to record the disorder offers a practical basis for sustainably improving diagnosis, care and interdisciplinary communication. This model could therefore make a significant contribution to improving the quality of life of those affected and enable them to participate in society in the long term.

Ultimately, this work shows that a holistic and sustainable view of social-emotional handicaps rather than a symptom- and deficit-oriented behavioral analysis is imperative. In particular, the recognition and classification of these impairments as disabilities is important in society and current educational practice, as it enables access to targeted support measures, specialized support programs and legal protection mechanisms. Only through a combination of scientific research, interdisciplinary cooperation and individually adapted care strategies can the social participation of affected persons be successfully enabled, which therefore requires a paradigm shift (J. Johnson, 2025b).

However, such a paradigm shift in education and society cannot be viewed in isolation but rather involves a more comprehensive change in educational and working structures. Educational institutions should increasingly address the needs of people with social-emotional disabilities by offering differentiated learning approaches and adaptive teaching methods that consider both cognitive and (much more important: “emotion before cognition”, Strüber, 2016, p. 47) emotional development.

However, the long-term effects of inadequate and inappropriate support extend beyond the education sector - especially into the world of work. Mental illnesses, which

can lead to permanent impairments and subsequently even to a recognized disability, play an increasing role there and are reflected in rising sickness rates as well as high absenteeism and rising numbers in integration assistance. This increase highlights the need to establish preventative measures and targeted interventions not only in the educational context, but also in working life. Without adapting to current scientific findings, the risk increases immensely that those affected will not receive sufficient support in the long term - with far-reaching consequences for individuals and society as a whole.

In addition to the personal burdens, the problems in the world of work are creating considerable economic challenges: Social security is increasingly strained, health and social costs are rising, and a shrinking workforce is intensifying the already acute and increasing shortage of skilled workers. At the same time, social insecurity and inequality are growing as a result, which poses a lasting threat to social cohesion and is already being felt all over the world. Against this backdrop, the promotion of mental health is becoming an economic and social necessity. In view of the steadily increasing number of mental illnesses and social-emotional challenges, the following question is therefore crucial and must be investigated further:

Are the ideals of autonomy and self-determination that characterize our educational and social structures beneficial - or do they create the very excessive demands that they claim to combat?

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