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Residential Youth Care: The Identification of Critical Risk and Protective Factors for Successful Outcomes

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E HUMANAS

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To the strong women in my family-my mum, sister, and grandmother

Who always believed in me and made me feel that anything was possible

To all the young people facing injustice around the world

Acknowledgements

I arrived in Portugal with clear objectives: to live authentically, reconnect with nature and myself, and focus on what truly matters, making a meaningful difference in the lives of the most vulnerable. My journey was fueled by a pursuit of happiness and a deep commitment to fostering a compassionate, innovative approach to service development in therapeutic residential care. Having evaluated the quality of young people's mental health services (inpatient units) across the UK and having worked therapeutically with young people there, I recognised that a fundamental global paradigm shift was essential to achieving sustainable, positive outcomes for young people with severe mental health problems in residential treatment. I was inspired to be part of that shift.

First and foremost, I am deeply grateful to Professor Eunice Magalhães, whose dedication, guidance, and mentorship have been instrumental in helping me reach this milestone. Her expertise has enriched my journey in countless ways, and I will carry the lessons learned from her for a lifetime. This achievement is as much hers as it is mine, illustrating the power of collaboration and shared effort. I also extend my heartfelt thanks to Professor Jorge Fernández del Valle for his positivity, support, and encouragement throughout this process and Professor Patrício Costa for his invaluable support in Study 5. I am deeply grateful to the young people who participated in these studies. Your voices have been heard, and your experiences are invaluable. Thank you for trusting me to listen and for sharing your insights, which have contributed to a better understanding of your needs and challenges.

No doubt, this journey has been filled with challenges, adapting to the Portuguese language, navigating different cultural perspectives, adopting a different way of learning, and embracing a different worldview. Yet, despite these obstacles, I visualised a future where my

goals were attainable. I firmly believed in the possibility of transformation and growth, regardless of doubts or skepticism, and that Portugal had the 'real' riches I needed. The life lesson I carry with me is that when faced with discouragement or doubt, instead of giving up or seeking an easier way, we should work harder, push a little further, and persevere. To my dear Mum, Maria de Conceição, sister Anna and Avó Beatriz, thank you for your endless encouragement and for always reminding me that anything is possible with hard work. Your unwavering support and your example have shown me the way, helping me carry on during moments when I felt like surrendering.

Throughout this transformative journey, I have been sustained by the collective strength of my support network—my family and dear friends. To those who have stood by me and who truly know me (Fernando Medina, Patricia Pereira, Nuno Domingues), your understanding, patience, and encouragement have been fundamental. This accomplishment reflects the collective efforts, kindness, and perseverance of many. Without your unwavering support, this accomplishment would not have been possible. I am excited to continue this journey with the support and collective strength of those around me. Living in Portugal has exceeded my expectations and objectives; it has profoundly transformed me, and I am filled with gratitude and happiness for this new chapter of my life in Portugal.

Resumo

O objetivo geral desta tese foi identificar os fatores críticos de risco e proteção associados a resultados bem-sucedidos em Acolhimento Residencial Terapêutico (ART). Esta tese incluiu cinco estudos interligados. O primeiro estudo de revisão sistemática introduziu uma dupla conceptualização de fatores de tratamento não específicos (e.g., sexo e história de abuso e trauma) e específicos (e.g., modelo de tratamento e tomada de decisão de colocação), associados a níveis mais reduzidos de psicopatologia. O estudo dois identificou indicadores de qualidade no ART (e.g., relações de confiança, envolvimento familiar e relações de continuidade) através das vozes dos jovens. Os estudos seguintes empíricos foram realizados em casas de ART em Portugal com recurso a um desenho transversal. O estudo 3, (métodos mistos) examinou as experiências vividas pelos jovens em ART e psicopatologia, e o Estudo 4 (qualitativo) permitiu examinar a perspetiva dos profissionais. O Estudo 5 (quantitativo) identificou perfis de jovens com base no modelo de fator duplo de saúde mental e fatores de tratamento não específicos e específicos. Em conclusão, os resultados destacam a história prévia de mau-trato e o *Milieu Factor* (relações de confiança com profissionais, pares, família e comunidade) como fatores críticos de risco e de proteção. Estes resultados culminam no primeiro quadro de referência de base deliberativa para melhorar os resultados no ART, fornecendo recomendações baseadas em evidência, acionáveis para as políticas e para a prática clínica.

Palavras-chave: acolhimento residencial terapêutico, milieu factor, mau-trato, intervenções personalizadas

Categorias e códigos de classificação APA PsycINFO

2800 Psicologia do Desenvolvimento

2900 Processos Sociais & Questões Sociais

3300 Saúde & Tratamento de Saúde Mental & Prevenção

Abstract

The overall aim of this thesis was to identify the critical risk and protective factors associated with successful outcomes in Therapeutic Residential Care (TRC). This thesis was composed of five interconnected studies. Studies 1 (quantitative) and 2 (qualitative) were systematic reviews. The first study introduced a dual conceptualisation of non-specific (e.g., sex and abuse and trauma history) and specific treatment factors (e.g., treatment model and placement decision making) associated with lower psychopathology. The latter study identified quality indicators in TRC directly from the voices of young people (e.g., trusting relationships, family involvement and, relationship continuity). Studies 3–5 provide empirical evidence from TRC facilities in Portugal using a cross-sectional design. Study 3 (mixed methods) examined young people's lived experiences of TRC and psychopathology. Study 4 (qualitative) examined the lived experiences of staff only. Study 5 (quantitative) identified clusters of young people based on the dual-factor model of mental health, and non-specific and specific treatment factors. Across studies, key findings highlighted the importance of maltreatment history as a critical non-specific treatment factor associated with risk, whereas the Milieu Factor (trusting relationships with staff, peers, family, and the community) emerged as a pivotal specific treatment factor for both risk and protection. These findings culminate in the first bottom-up framework to improve outcomes in TRC providing actionable, evidence-based recommendations for policy and clinical practice.

Keywords: therapeutic residential care, milieu factor, maltreatment history, tailored interventions

Categorias e códigos de classificação APA PsycINFO

2800 Psicologia do Desenvolvimento

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3300 Saúde & Tratamento de Saúde Mental & Prevenção

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SECTION A.

BACKGROUND AND

INTRODUCTION

General Introduction

Beyond the "Black Box" of Therapeutic Residential Care

The implementation of Therapeutic Residential Care (TRC) represents one of the most complex and resource-intensive interventions within the youth mental health landscape (Castro et al., 2023). For young people entering TRC, a documented history of polyvictimisation, maltreatment, and trauma (Farley et al., 2021; Kanestrøm et al., 2023; Segura et al., 2017) often creates profound barriers to healthy relational functioning. These developmental challenges frequently manifest as deep-seated social isolation, which can persist even within highly structured care environments (McPherson et al., 2024, 2025).

While TRC has increasingly adopted evidence-based models, such as Trauma-Informed Care (TIC) (Duff et al., 2020), a persistent research-to-practice gap remains (Goldstein et al., 2024; Lotty, 2021). The success of these interventions is frequently obscured by what researchers describe as the black box" metaphor: a fundamental lack of clarity regarding the specific mechanisms that drive meaningful therapeutic change (Knorth et al., 2014; Leipoldt et al., 2019; Whittaker, 2017). Despite the growing theoretical support for these models, empirical evidence regarding their ultimate effectiveness remains mixed, raising critical questions about the long-term efficacy of TRC (den Dunnen et al., 2012; Frensch & Cameron, 2002; Harder, 2018; Knorth et al., 2008; Leipoldt et al., 2019). The core challenge for practitioners and researchers alike is identifying how "to achieve enduring change [...] that persists over time well after the young person's exit" (Gilligan, 2015, p. 15). This inconsistency in long-term success has been attributed to limitations in fundamental therapeutic elements, most notably the difficulty in establishing stable, trusting relationships between youth and caregivers (Harder, 2013). Furthermore, the risk of iatrogenic effects, such as peer contagion, where negative behaviours are reinforced within the

residential group, further complicates the treatment landscape (Castro et al., 2024; Huefner & Ringle, 2012).

Nevertheless, despite these challenges, some studies have shown positive long-term outcomes, particularly when TRC is part of a continuum of care that includes family and addresses family functioning (Janssen et al., 2025). This suggests that the success of TRC may be enhanced when it is integrated into a broader, comprehensive system of care, rather than functioning as a stand-alone intervention.

The Relational Core and the Need for a Dual-Factor Perspective

Current literature identifies the youth-staff relationship as a primary vehicle for recovery, fostering the emotional regulation and safety necessary for trauma processing (Duppong Hurley et al., 2017; Harder et al., 2013; Leipoldt et al., 2019). Beyond professional alliances, peer relationships within a supportive organisational climate serve as a critical adjunct, providing additional sources of trust and validation that improve overall treatment engagement (Leipoldt et al., 2019). While these findings emphasise the importance of evidence-based treatments and an organisational culture rooted in trusting relationships, traditional evaluations of TRC success have historically been constrained by a deficit-based focus.

This thesis initially adopted such a traditional approach, prioritising the reduction of negative symptoms, such as internalising and externalising symptoms (Castro et al., 2023, 2025). While the initial studies provided a vital baseline of clinical symptoms, the emerging data necessitated a broader lens to capture the holistic recovery process, leading to the adoption of a dual-factor model of mental health. Consequently, this research argues for a necessary paradigm shift. In the final stage of this work, a dual-factor model of mental health was adopted, positing that true recovery requires a simultaneous focus: not only the alleviation of clinical distress but

also the active cultivation of positive indicators, such as life satisfaction, resilience, and social connectedness (Magalhães, 2024).

A significant limitation in current TRC research is the tendency to view the residential setting as an isolated environment. While frameworks like Farmer et al.'s (2017) four-pronged model (Setting, Staffing, Treatment, and Safety) provide a structural foundation, it overlooks the dynamic, systemic forces that connect a young person to the world outside the facility. This thesis introduces the Milieu Factor**,** a concept emerging from the lived experiences of youth, which identifies the broader social ecology, family, and community reintegration as essential, yet often neglected, components of successful care.

Addressing the Methodological Gap: A bottom-up Approach

Historically, research in TRC has been dominated by a top-down, positivist paradigm prioritising quantitative objectivity and immediate symptom reduction (Badura Brack et al., 2012; Boyer et al., 2009; Duppong Hurley et al., 2015; Farmer et al., 2016, 2017; Hodgdon et al., 2013; Jordon et al., 2009; Sunseri, 2004, 2020). This focus has resulted in a notable absence of the perspectives of young people, the primary recipients of care (McPherson et al., 2024, 2025). This research challenges existing paradigms by highlighting that clinical success is inseparable from the youth's subjective experience of care. By elevating the voices of young people, this work departs from a tradition of risk management and moves toward a model of therapeutic co-construction, where the quality of the living environment and the strength of human relationships are recognised as the primary drivers of sustainable change. By moving away from traditional, adult-centric models, the work establishes a new foundation for youth mental health services in Portugal.

Thesis Roadmap: Integrating Five Interconnected Studies

This thesis includes five interconnected studies to address our main research question (Figure 1). To establish a robust foundation for this body of work, we provide a critical synthesis of the three distinct conceptualisations and theoretical frameworks that have guided the studies presented in the current thesis. Bridging non-specific and specific treatment factors with the dual-factor model of mental health and adopting the foundational pillars of Farmer et al.'s (2017) conceptualisation (Setting, Staffing, Treatment, and Safety). We argue that these structural elements are insufficient unless filtered through the subjective lived experience of the youth. By adopting a bottom-up approach, this research evolves these four prongs into a more dynamic, relational matrix, ultimately proposing a framework where structural adequacy is transformed into therapeutic synergy. We then situate the research within the unique socio-legal and historical landscape of TRC in Portugal.

After outlining the state-of-the-art, the main research problems, and the research objectives that we aim to address, we present two systematic reviews (quantitative and qualitative) and three empirical studies (qualitative, mixed methods, and quantitative). The first study, a quantitative systematic review, provided a comprehensive summary and evaluation of the current state of knowledge and development worldwide regarding the identification of non-specific and specific treatment factors associated with lower or greater internalising and externalising symptoms with multiple informants. This systematic review proposed a new conceptual framework based on psychopathology outcomes and provided initial clues regarding the critical factors associated with fewer symptoms. However, as this review focused on quantitative published studies, a qualitative systematic review was also conducted to provide further insight into the critical factors associated

with service quality, and focused exclusively on young people's lived experiences to further understand *how* results are achieved and the process of change.

Study 2 was a qualitative systematic review that builds on the four-pronged parsimonious conceptual framework proposed by Farmer et al. (2017) (Setting, Staffing, Treatment Approach, and Safety). The second study aimed to identify the quality indicators of TRC drawn from young people's perceptions and experiences. This is a significant step forward in identifying the critical factors that underpin the success of TRC and developing youth-friendly and bottom-up services, as this approach to assessing quality recognises the significance of young people's perceptions and experiences in molding and appraising TRC. Furthermore, these findings provide support for an additional critical domain (i.e., Milieu Factor) that may assist services in targeting support to what matters most for young people in the long term.

Study 3, a convergent parallel mixed method study that examined young people's perceptions and experiences of TRC (qualitative) and psychopathology (quantitative). Integrating lived experiences and psychopathology outcomes provides insights into how young people with different profile characteristics perceive and experience TRC. Additionally, it provided crucial clues on how to tailor treatment to be responsive to young people with different profile characteristics and needs (e.g., enhancing trusting relationships with peers). Evidence was gathered using purpose-built semi-structured interviews that focused on young people's perceptions and experiences of TRC associated with psychopathology (internalising and externalising symptoms). Findings from the perspective of young people (Studies 2 and 3) highlight the pivotal role of trusting relationships with professionals in their healing journey. Therefore, study 4, a qualitative study, focused on diverse staff perspectives to identify the most important elements in TRC.

Following the evidence gathered in studies 1-4, we present the last preliminary quantitative study in which we conducted a two-step cluster analysis of females in TRC and adopted a dual-factor approach to mental health, including non-specific treatment factors (maltreatment history and recent victimisation) and specific treatment factors (Milieu Factor and family contact) in the analysis. By understanding the critical characteristics of each cluster, interventions can be tailored to address specific needs and challenges more effectively by focusing on the most pressing issues for each youth profile.

Ultimately, to uncover the black box, this thesis argues that a radical shift toward a bottom-up approach is required. This collection of five interconnected studies offers a distinct contribution to the field, culminating in the first comprehensive, youth-friendly framework for TRC in Portugal, as illustrated in Figure 4. By providing actionable insights for policymakers and practitioners, this thesis aims to bridge the gap between international research and local practice, fostering sustainable recovery environments that truly empower vulnerable young people.

Figure 1

Schematic Outline of this Thesis: Theoretical Background, Research Problems, Objectives and Studies

<table>
<tr><th colspan="5">Theoretical background</th></tr>
<tr><td colspan="5">- The diverse characteristics of youth, wide array of treatment models and therapeutic elements pose challenges in understanding the core components that contribute to the success of TRC (Castro et al., 2023; Whittaker, 2017) and what works (Lanier et al., 2020).
- Understanding the mechanisms behind positive TRC treatment outcomes, rather than merely examining the results themselves, may assist in achieving lasting improvements (Harder & Knorth, 2015).
- When identifying the optimal execution and critical elements of TRC, the importance of prioritising young people's perspectives to shape the service provided cannot be overstated (Castro et al., 2024, 2025; McPherson et al., 2025).</td></tr>
<tr><th colspan="5">Research problems</th></tr>
<tr><td colspan="5">There is a scarcity of studies that:
- Provide and refine conceptual frameworks to identify the critical factors in TRC.
- Use qualitative designs or mixed methods to identify the critical components of TRC.
- Consider the perspective of young people when appraising TRC.
- Consider mental health as a multi-dimensional concept.</td></tr>
<tr><th>Objective 1</th><th>Objective 2</th><th>Objective 3</th><th>Objective 4</th><th>Objective 5</th></tr>
<tr><td>To identify non-specific and specific treatment factors associated with internalising and externalising symptoms in youth in TRC.</td><td>To identify quality indicators drawn from young people's perceptions and experiences of TRC.</td><td>To identify young people's perceptions and experiences of TRC</td><td>To identify staff's perceptions and experiences of delivering TRC.</td><td>To identify clusters of young people based on their mental health and non-specific and specific treatment factors</td></tr>
<tr><td>Study 1. Quantitative systematic review</td><td>Study 2. Qualitative systematic review</td><td>Study 3. Mixed methods (multi-informants i.e., young people and staff)</td><td>Study 4. Qualitative (staff)</td><td>Study 5. Quantitative (multi-informants i.e., young people and staff)</td></tr>
<tr><th colspan="5">Concluding remarks</th></tr>
</table>

Conceptual Frameworks

Dual Conceptual Framework

The complex interplay between internalising and externalising symptoms in young people presents a significant challenge to TRC providers. While TRC primarily focuses on addressing externalising behaviours such as aggression or disruptiveness, the high prevalence of co-occurring internalising symptoms, including anxiety and depression, necessitates a more comprehensive approach to treatment capable of addressing both symptom domains simultaneously (Castro et al., 2023; Duppong Hurley et al., 2017; Schuurmans et al., 2018). The manifestation of this comorbidity can take various forms, with anxiety and depression often coexisting alongside aggressive and rule-breaking behaviours (Essau & de la Torre-Luque, 2023).

By targeting these core symptom clusters and factors, researchers and clinicians can develop more effective interventions that can improve the overall outcomes of young people with TRC. The complex interplay between internalising and externalising symptoms in the youth in TRC settings necessitates a nuanced understanding of their interconnectedness. Adopting a dual conceptual framework (non-specific and specific treatment factors associated with psychopathology), practitioners and researchers can develop more targeted and effective support strategies for young people with TRC. Non-specific treatment factors influence the services provided irrespective of the target demographic or service type (Priebe et al., 2020). Specific treatment factors only operate with certain types of interventions and target groups (e.g., Strauss et al., 2018).

Non-specific treatment factors, such as childhood maltreatment, have emerged as significant contributing factors to the persistence and complexity of internalising and externalising symptoms (Castro et al., 2023). A recent meta-analysis aimed to identify the maltreatment types

that produce the largest effect sizes in mental health outcomes for young people in out-of-home care as well as the conditions affecting these effects found that the largest effect sizes were found on sexual abuse, both for internalising (medium) and externalising (small) symptoms (Magalhães & Camilo, 2023), which is consistent with evidence suggesting the particular deleterious effect of sexual abuse (Lewis et al., 2016).

Furthermore, research indicates that females may have more complex profiles than males, exhibiting higher levels of internalising and externalising symptoms, and are more likely to experience sexual abuse, which may explain their vulnerability to mental illness (Castro et al., 2023). Additionally, females' heightened immediate psychological stress responses play a significant role in their vulnerability to disorders such as post-traumatic stress disorder. Females often report more severe immediate psychological stress responses and have a higher prevalence of certain risk factors, which further contribute to the gender disparity in mental health (Haering et al., 2024). Understanding these gender-specific vulnerabilities is crucial for developing targeted interventions and prevention strategies to effectively address the mental health needs of males and females.

Specific treatment factors, such as the use of an evidence-informed model of treatment, are strong markers of programmes that are likely to provide high-quality care and have a high likelihood of producing positive outcomes. Farmer et al. (2016) found that youth who received TRC, adopting the Teaching Family Model (TFM), demonstrated marked outcomes for youth when implemented *correctly*. For example, a quasi-experimental study showed improvement in internalising and externalising symptoms between 12 and 16 months, whereas non-TFM youths showed a slight worsening. By analysing these factors within the TRC process, it becomes feasible to generate explanations for programme effectiveness and use this understanding for improvement

(Harder & Knorth, 2015). Given the diverse range of TRC programmes and the varied youth population accessing them (Whittaker, 2017), there is a pressing need for focused research and systematic understanding of both non-specific and specific factors that contribute to the reduction of young people's internalising and externalising symptoms in this context. Aggregating outcome studies can be challenging because each study may employ a unique definition of an outcome based on its specific constructs (Lengnick-Hall et al., 2022). Consequently, a more precise analysis of the results can be achieved (Castro et al., 2023).

However, this dual conceptualisation provided only a useful starting point, but may oversimplify the complex nature of mental health. For example, there is a growing recognition of the importance of considering both mental illness and positive mental health as partly correlated but distinct dimensions (Bacaro et al., 2024; Magalhães, 2024; Pinheiro et al., 2022, 2024b). This model challenges the conventional paradigm that views mental health and illness on a single continuum, emphasising the importance of considering both aspects separately (Magalhães, 2024).

Dual-factor Model of Mental Health

The dual-factor model of mental health proposes that mental health consists of two distinct, yet interrelated dimensions: psychopathology and well-being (Magalhães, 2024). This model challenges the traditional view that mental health and mental illness are opposite ends of a single continuum, suggesting that they are separate and complementary. This approach aligns with positive psychology principles and provides a more comprehensive framework for understanding and promoting mental health across various populations and settings (Magalhães, 2024). The implications of this model for TRC are substantial, highlighting the need to consider the unique combination of psychopathology and well-being in each individual, potentially leading to more effective and personalised TRC services for young people. By acknowledging that each person

presents a unique profile of strengths and difficulties, TRC providers can develop more nuanced and individualised treatment plans. This approach may involve simultaneously addressing specific mental health symptoms while fostering resilience, self-esteem, and other aspects of well-being.

For example, the model classifies individuals into different mental health groups based on their levels of psychopathology and well-being, such as Complete Mental Health (high well-being, low symptoms), Vulnerable (low well-being, low symptoms), Symptomatic but Content (high well-being, high symptoms), and Troubled (low well-being, high symptoms) (Lyons et al., 2012; Magalhães, 2024). By recognising that high well-being can coexist with high symptom levels (as in the 'Symptomatic but Content' category), or that low well-being can occur without significant symptoms (in the 'Vulnerable' group), the model challenges conventional approaches that focus primarily on symptom reduction (Zhang et al., 2025).

Instead of solely focusing on alleviating mental health symptoms, interventions are aimed at enhancing individual well-being and resilience, thereby promoting a more complete state of mental health (Gautam et al., 2024). This holistic approach has significant implications for TRC settings. It encourages practitioners to consider the full spectrum of young people's mental health experiences, including resilience, coping mechanisms, and overall life satisfaction. For example, combining interventions that target depressive symptoms with those that promote life satisfaction can lead to improved psychological outcomes (Francisco et al., 2025).

Consequently, TRC services adopting this dual-factor model and focusing on both psychopathology and life satisfaction, a key indicator of overall well-being (Kubiszewski et al., 2022), may be better equipped to provide personalised care that addresses the complex interplay between an individual's symptoms and their overall sense of well-being. However, focusing solely on mental health outcomes can be limiting because this perspective overlooks broader contextual

factors that influence the well-being and development of young people in TRC. Farmer et al. (2017) proposed a four-pronged conceptualisation that emphasised the importance of environmental and organisational factors, Setting, Staffing, Treatment Approach, and Safety, that directly impact the quality of care and overall outcomes. By integrating these dimensions, their model promotes a holistic approach, recognising that improvements in mental health outcomes are interconnected with enhancements in the environment and organisational practices. Limiting focus to just mental health outcomes risks overlooking these foundational elements that are crucial for long-term well-being and sustainable change.

Farmer et al.'s (2017) Four-pronged Conceptual Framework

The conceptual framework proposed by Farmer et al. (2017) offers a comprehensive approach to understanding and evaluating TRC. This framework, which encompasses Setting, Staffing, Treatment Approach, and Safety, provides a multidimensional perspective that aligns with the complex nature of TRC settings. Integrating both risk and protective factors, as well as outcomes, enables a holistic assessment of care quality and effectiveness. The interplay between environmental factors, staff competencies, treatment methodologies, and safety measures creates a dynamic ecosystem that significantly influences youth experience and developmental trajectories. By examining these interconnected components, practitioners and researchers can gain deeper insights into the mechanisms that drive positive changes and develop more targeted and effective interventions.

This thesis builds on Farmer et al. 's (2017) framework, but in contrast to the original study, it adopted a qualitative and mixed methods design to capture nuanced insights that might be missed in purely quantitative studies. This methodological choice allows for the exploration of subjective

experiences, contextual factors, and underlying processes that contribute to treatment outcomes rather than merely examining the results themselves (Harder & Knorth, 2015).

This conceptual framework recognises various elements that contribute to positive outcomes, suggesting that a myriad of factors should be assessed when evaluating quality due to the complex nature of the care setting and its impact on youth outcomes (Anglin & Henderson, 2024; James, 2011, 2017). The strength of the framework lies in its ability to integrate both risk and protective factors and outcomes, offering a holistic view of care (Farmer et al., 2017), which this thesis supports. This multidimensional approach aligns with the contemporary understanding of effective care practices and provides a solid foundation for assessing the critical elements of TRC and how support can be tailored to young people's complex needs. The findings of Farmer et al. (2017) found that beyond basic licensure, which may serve as an initial indicator of baseline quality, the use of an evidence-informed model (such as the TFM) was associated with better outcomes for youth. Furthermore, specific factors within each domain further explained better outcomes, such as focused motivational systems, youth perceptions of staff fairness and helpfulness, provision of age-appropriate resources, increased pre-service training, and prohibition of physical restraint.

However, further research is needed to assess the four-pronged conceptualisation of generalisability and effectiveness across different residential care settings (Farmer et al., 2017), and specifically, if the proposed domains are sufficient to determine the most critical elements of TRC. Young people and staff can provide invaluable insights when refining the framework to ensure its relevance and applicability in real-world settings. By prioritising the viewpoints of those directly involved in TRC, researchers can identify key elements that may have been overlooked and establish meaningful benchmarks for evaluation and improvement (Castro et al., 2024, 2025).

This participatory approach not only enhances the framework's validity but also empowers young people and stakeholders (Bellairs-Walsh et al., 2025).

This exploratory and dynamic strategy ensures that the resulting framework is tailored specifically for young people in TRC at any time, ensuring that TRC is youth-friendly and potentially more effective in addressing their unique challenges. This may be even more critical for young people in TRC. While participatory approaches are highly valued, some studies show that young people still have limited opportunities for meaningful participation in decision-making processes (Castro et al., 2025; Ten Brummelaar et al., 2018). This contradiction highlights the need for continued efforts to implement and improve participatory methods in TRC settings. By involving youth in the ongoing development and implementation of this conceptual framework, TRC can better align with the needs and preferences of young people and promote meaningful participation in decision-making processes (Bellairs-Walsh et al., 2025). The implementation of regular feedback loops creates multiple opportunities for young people to participate actively in shaping their care experiences. This participatory approach not only empowers them but also enhances their sense of ownership and engagement with the therapeutic process (Knowles et al., 2022).

As highlighted by Bellairs-Walsh et al. (2025), young people's perceptions of clinical suitability and therapeutic relevance significantly influence their evaluations of the overall effectiveness of the services, which subsequently affects their engagement. This insight is vital for improving service delivery and outcomes. Furthermore, there are sometimes inconsistencies between what professionals believe to be beneficial and what young people find helpful. For example, Ungar and Ikeda (2017) revealed that while youth spoke most positively about workers

who acted as informal supporters, they also engaged well with those who enforced the necessary rules flexibly and appropriately.

This nuanced understanding can only be gained by directly considering the perspectives of young people (Castro et al., 2024). Involving young people as co-designers of their care challenges traditional academic conceptualisations of outcomes and emphasises the diversity of experiences (Knowles et al., 2022). This iterative process of evaluation, feedback (Knowles et al., 2022; Pavarini et al., 2021), and adaptation of the Farmer et al. (2017) four-pronged conceptual framework can contribute to improved outcomes and experiences of youth in TRC settings and inform targeted programme development in TRC, bridging the gap between research and practice.

The Portuguese Context of Therapeutic Residential Care

In Portugal, the out-of-home care system predominantly relies on residential care as the primary form of alternative care, with foster care being significantly underutilised (Delgado, 2023). This stark contrast to most European child protection services is particularly noteworthy, as the most recent official data in the Portuguese context show that only 4.1% of children and young people are placed in foster care, and the rest are in a residential context (e.g., generalist foster homes and autonomy apartments) (ISS.IP, 2024). The heavy reliance on residential care in Portugal is similar to the historical patterns observed in Spain and Israel. Mediterranean countries have traditionally favoured institutional care over family-based alternatives, partly because of strong family ties and cultural factors (Kosher et al., 2018).

However, recent legislative changes in Portugal are underway, which may significantly change the landscape of residential care for young people in the child protection system. In particular, Law No. 37/2025 and Law No. 39/2025 represent a significant shift towards family-based care and maintaining family connections. For example, Law No. 37/2025, an amendment to

the previous legislation (Law No. 146/99), stipulates that foster care legislation will now allow foster carers to have blood ties with children or young persons in their care. This policy reform aligns with international best practices that prioritise family-based care and recognises the importance of kinship care for preserving children's connectedness to their family, culture, and community, contributing to more adaptive outcomes (Hassall et al., 2021). It allows for a more flexible approach to foster care placements, potentially increasing the pool of available caregivers and providing more culturally appropriate care options.

Furthermore, the amendments introduced by Decree-Law No. 39/2025, enhance the flexibility of the capacity of residential units to allow the joint stay of siblings and meet the criteria of geographical proximity to the biological family, which is justified by the best interests of the child. By acknowledging the importance of geographical proximity to the family and flexible institutional capacity for sibling groups, the law aims to create a more supportive and stable environment for children and young people in residential care. For example, research indicates that children with at least one sibling are less likely to experience placement moves (Font & Kim, 2022).

It is important to note that the effectiveness of such policies may vary depending on individual circumstances. While family proximity and sibling placement are generally beneficial, factors such as family functioning, the nature of sibling relationships, and the specific needs of the child should also be considered (Barnett & Hunter, 2012; Castro et al., 2023; Sunseri, 2020). Additionally, the law's focus on technical assessment before institutionalisation aligns with research suggesting that careful evaluation of family context and child characteristics is crucial in determining appropriate care arrangements (Castro et al., 2023, 2024; Holmes et al., 2018).

Over the past two decades, Portugal has made significant strides in developing specialised residential care services, including emergency shelters, therapeutic and educational settings designed for young people with severe mental health problems or disabilities, and autonomy apartments, all with a growing emphasis on therapeutic approaches (Castro et al., 2025; ISS.IP, 2024). Although these specialised facilities currently accommodate a relatively small proportion (2.0%) of young people in out-of-home care (ISS.IP, 2024), their importance is underscored by a dramatic rise in demand. Over the past eight years, the number of young people requiring this level of care has surged by 118%, driven in large part by an increase in unaccompanied minors (ISS.IP, 2023). This substantial growth highlights the urgent need for continued development and expansion of TRC to address the increasingly complex needs of vulnerable youth within the Portuguese child protection system.

An international consensus statement offered a definition of TRC and its essential components: “TRC involves the planful use of a purposefully con-structed, multi-dimensional living environment designed to enhance or provide treatment, education, socialisation, support, and protection to children and youth with identified mental health or behavioural needs in partnership with their families and in collaboration with a full spectrum of community-based formal and informal helping resources.” (Whittaker et al., 2015, p. 24). This definition has established a clear foundation for assessing current programmeme quality and guiding future research, programme development, and policy initiatives (Daly et al., 2018). It provides a basis for policy initiatives, ensuring that service development aligns with recognised best practices and standards.

However, significant legislative changes in the Portuguese organisation of units have also been made that will change the landscape of how specialised residential settings that address

therapeutic or educational needs (targeting young people with severe mental health problems or disabilities) will be delivered in the future in Portugal. Although this internationally recognised framework played a crucial role in shaping effective interventions and improving outcomes for vulnerable youth in Portugal (Castro et al., 2025), changes in the organisation of units have been made by removing TRC from specialised services offered to young people in the Portuguese child protection system.

Critically, the amendments introduced in the Decree-Law 39/2025 represent a significant shift in the approach to specialised care for young people in the Portuguese child protection system. While TRC has been recognised as an essential service (ISS.IP, 2024) with a growing evidence base (Castro et al., 2025), the new legislation only includes units that are designed to address emergencies and promote youth autonomy through autonomy apartments and does not include specialised residential settings to address therapeutic or educational needs (targeting young people with severe mental health problems or disabilities). This change reflects a move towards more targeted interventions and a focus on developing independent living skills among young people in care.

While this approach may offer an opportunity for a more tailored approach to interventions, it also raises questions about the potential impact on the continuity and comprehensiveness of care previously provided in TRC facilities. Furthermore, the lack of guidance regarding critical elements could possibly lead to inconsistencies in care delivery across different facilities. This also raises concerns regarding how these new units will integrate with existing healthcare systems and community-based support services, potentially creating gaps in the continuum of care for vulnerable young people.

Without clear standards and quality assurance measures, there is a risk of inconsistent care delivery across different facilities, potentially compromising the well-being and outcomes of vulnerable youths. This thesis explored the critical factors that contribute to successful TRC implementation, emphasising their importance in maintaining high-quality services. By identifying and analysing these key elements, this research aimed to provide insights that can inform future policy decisions and ensure that TRC facilities continue to meet the diverse and evolving needs of young people, even in the absence of a formal TRC framework.

Research Problems and Objectives

Research Problems

The literature review presented in the preceding chapter highlights the necessity for clarification regarding the critical components of TRC (Castro et al., 2023; Harder & Knorth, 2015; Knorth et al., 2014; Leipoldt et al., 2019; Whittaker, 2017). Current literature reveals a spectrum of risk and protective factors that contribute to the effectiveness of TRC (Castro et al., 2023). Although outcome studies offer significant insights into the effectiveness of interventions and treatments (Castro et al., 2023), they represent only one aspect of TRC efficacy. Furthermore, there is a notable absence of a refined conceptual framework that identifies critical factors in TRC for young people. Although the four-pronged conceptualisation by Farmer et al. (2017) provides foundational elements, this framework does not specifically address the TRC context for youth in TRC. This gap in the literature presents an opportunity to develop a more comprehensive and tailored framework for TRC.

Addressing this gap is essential, with an emphasis on adopting a qualitative and mixed methods approach. Qualitative methods are particularly well-suited for exploring new or complex problems where the key factors are not yet understood or difficult to measure (Busetto et al., 2020). They also provide a more comprehensive understanding of complex issues (Matović & Ovesni, 2021). Therefore, qualitative methods are especially relevant when identifying the crucial elements of the TRC. Mixed methods research has also been increasingly recognised as a valuable approach in the fields of public administration, health care, and social sciences (Rana & Chimoriya, 2025). Refining and building the Farmer et al. (2017) framework for young people using a qualitative, mixed methods design may be particularly useful when understanding the mechanisms behind

positive treatment outcomes, rather than merely examining the results themselves (Harder & Knorth, 2015).

Furthermore, when identifying the optimal execution and critical elements of TRC, the importance of prioritising young people's perspectives to shape the service provided cannot be overstated (Castro et al., 2024, 2025; McPherson et al., 2025). There is a growing awareness of the value of privileging the voices of children and young people, about their experiences and perceptions of services or programmes offered to them (Fox, 2020). This awareness has extended to contemporary research methods and includes participatory and other methods that are designed to capture the voices of young peopleand collaborate with them throughout the research process (Mendes et al., 2023).

However, gaining access to young people in residential settings to ensure their views are reflected in policy and practice reforms remains a challenging proposition for many researchers, where the state, as guardian of the child, may be reluctant to allow access to information that is less than optimal practice (McPherson et al., 2021). Additional challenges include the involuntary nature of TRC placements, potential disengagement of some youth (Boel-Studt et al., 2019), and where young people's behavioural and emotional challenges may be perceived as barriers to participatory practices (McPherson et al., 2021). Such may also explain why some studies show that young people still have limited opportunities for meaningful participation in decision-making processes (Castro et al., 2025; McPherson et al., 2025; Ten Brummelaar et al., 2018).

Furthermore, the emphasis on risk and negative outcomes in research concerning young people in TRC highlights another significant gap in understanding their overall psychological health (Lou et al., 2018). While studying psychopathology is crucial, it provides only a partial picture of mental well-being. Incorporating positive aspects, such as SWL, into research

frameworks offers a more holistic approach to assessing and improving mental health outcomes. This balanced perspective acknowledges that mental health is not merely the absence of psychological symptoms but also encompasses positive experiences and SWL (Magalhães, 2024).

Addressing both dimensions simultaneously is essential for developing effective interventions. By focusing on enhancing life satisfaction alongside reducing psychological symptoms, practitioners and researchers can create more targeted and personalised support strategies. This approach recognises the unique strengths and challenges of each individual in TRC, allowing for interventions that not only alleviate distress but also foster resilience and overall well-being. Ultimately, this comprehensive approach to mental health outcomes in TRC settings has the potential to significantly improve outcomes for young people, promoting both symptom reduction and enhanced quality of life.

Research Objectives

Adopting an exploratory multifaceted approach, this thesis aims to bridge the gap between research and practice and inform the development of more targeted and effective interventions for young people in TRC, ultimately improving outcomes for this vulnerable population. This thesis comprises five distinct but interconnected studies that work together to identify the critical components of TRC. The foundation of this research is laid by a quantitative systematic review (Study 1), which aims to identify both non-specific and specific treatment factors associated with internalising and externalising in young people.

Second, a qualitative systematic review (Study 2) was conducted to build on the four-pronged conceptual framework (Setting, Staffing, Treatment Approach, and Setting) (Farmer et al., 2017), and quality indicators were drawn from young people's perceptions and experiences in TRC. This study aimed to shed light on young people's perceptions and experiences and

theoretically inform the four-pronged conceptualisation. As most studies in TRC are quantitative, qualitative studies that capture the process of change from the perspective of young people are another vital building block to assessing the success of TRC. Focusing on young people's perspectives guarantees their right to participate in research related to their life in residential care (as the Convention on the Rights of the Child states in Article 12; United Nations General Assembly, 1989), which in turn might be associated with greater empowerment and well-being (Magalhães et al., 2022).

As such, and continuing to build on the four-pronged parsimonious conceptual framework (Farmer et al., 2017) and focus on the perspective of young people, a convergent parallel mixed methods study was implemented (Study 3). This study aimed to examine young people's perceptions and experiences of TRC (qualitative) and their psychopathology (quantitative). Given adaptation might be facilitated by the quality of relationships with professionals in these settings, which in turn may positively impact young people's psychological adjustment (Leipoldt et al., 2019), and that staff may have different perspectives than young people, we present a qualitative study (Study 4) focusing on diverse staff perspectives regarding the critical factors associated with quality of care.

Finally, focusing on females who present with more complex profiles than males in TRC (Castro et al., 2023, 2025), we present a quantitative study (Study 5) in which we conduct a two-step cluster analysis of females in TRC. To capture distinct mental health profiles, positive and negative mental health measures were adopted as supported by the dual-factor model (Magalhães, 2024), and non-specific and specific treatment factors deemed critical according to Studies 1-4 were identified. By understanding the most important characteristics of each subgroup,

interventions can be tailored to address their specific needs and challenges more effectively by focusing on the most pressing issues for each cluster.

Overall, this thesis bridges the research-practice gap by translating research findings into practical applications for TRC and addressing ongoing debates in the field. By incorporating both process and outcome measures, with a strong emphasis on young people's perspectives and adopting a comprehensive methodology (quantitative, qualitative, and mixed methods); this thesis aimed to inform targeted TRC programmes, ultimately improving outcomes for this vulnerable population.

SECTION B.

COLLECTION OF ARTICLES

Quantitative Systematic Review

The current study was published in

Castro, E., Magalhães, E., & Del Valle, J. F. (2023). A systematic review of non-specific and specific treatment factors associated with lower or greater internalising and externalising symptoms in therapeutic residential care. *Children and Youth Services Review, 147*, 1–14. https://doi.org/10.1016/j.childyouth.2023.106840

Abstract

Background: There is limited evidence on how Therapeutic Residential Care (TRC) achieves treatment goals: TRC remains too much of a black box. We need to know more about how the results are achieved rather than merely investigating the achieved results. Objective: This systematic review aimed to synthesise quantitative literature regarding the associations between non-specific and specific treatment factors and lower or greater internalising and externalising symptoms. Method: Following PRISMA guidelines, a systematic literature search was conducted in July 2021. Of the 2,409 records screened, 40 articles, composed of 38 samples were included. Results: A total of six non-specific treatment factors (individual, family, academic history, symptoms, abuse and trauma history and relationships) and five specific treatment factors (treatment model, therapeutic intervention, placement decision making, environment and staffing) were reported. Conclusion: Only four non–specific treatment factors and one specific treatment factor appeared in multiple studies while all other factors and sub-factors were not replicated. More research is required to replicate and explore possible specific and non-specific treatment factors associated with internalising and externalising symptoms. The reviewed literature suggested that TRC should target a myriad of non-specific and specific treatment factors to increase the likelihood of success and that family involvement may be a particularly crucial component. Future research should focus on longitudinal studies that explore the long-term impact of non- specific and specific treatment factors on youth during placement and beyond.

***Keywords*:** therapeutic residential care, internalising symptoms, externalising symptoms, systematic review

Introduction

Therapeutic Residential Youth Care (TRC) concerns the treatment and care of young people outside their family environment and aims to provide services to protect, care, and prepare young people for returning to life in the community (Harder & Knorth, 2015). TRC is more treatment-intensive than traditional group homes but less restrictive than psychiatric in-patient units (Larzelere et al., 2001). The defining characteristic is the inclusion of a pronounced 'therapeutic' component (Leipoldt et al., 2019). An international consensus statement provided a definition of TRC, defining for the first time its key elements: "TRC involves the planful use of a purposefully constructed, multi-dimensional living environment designed to enhance or provide treatment, education, socialisation, support, and protection to children and youth with identified mental health or behavioural needs in partnership with their families and in collaboration with a full spectrum of community-based formal and informal helping resources" (Whittaker et al., 2015 p. 24). By defining TRC, research reviews documenting the effectiveness of TRC practices and models can now provide a clear base for determining current programme quality and establish future research, programme development, and policy directions (Daly et al., 2018).

As described by Whittaker (2017), TRC can have many names, take many forms, including variations in settings, components, staffing patterns, theories of change, size of living units, lengths of stay, and so on (Daly et al., 2018). Despite these variations, existing studies do not always provide sufficient detail about these differences, such as the treatment model or therapeutic approach adopted. Some studies do report on the treatment model (e.g., TFM) but only focus on a specific therapeutic component (e.g., Cognitive Behavioural Therapy [CBT]). Therefore, this review uses the term "therapeutic intervention" to refer to a specific therapeutic component in TRC where the study focus was to assess the therapeutic component. A "therapeutic intervention" may

stem from a variety of therapeutic approaches and aims to have a therapeutic effect (i.e., reduce internalising and externalising symptoms). This may be delivered as part of the treatment model or as an add-on to maximise improvement.

Young people in TRC have been unable to live at home mainly due to parental problems or severe behavioural problems (Handwerk et al., 1998; Knorth et al., 2008; Whittaker et al., 2016). Many are in Child Protection System (CPS), where the prevalence of youth experiencing multiple traumatic events such as abuse, neglect and violence can be as high as 92% (Briggs et al., 2012). The type of abuse may also impact youth differently. For example, sexual abuse, compared to emotional and physical neglect, was significantly more positively associated with internalising symptoms (Tyler et al., 2019). This is especially common in girls who experience higher rates of sexual abuse (Martinez et al., 2014; Mueser & Taub, 2008). As such, researchers worldwide (Farmer et al., 2001; González-García et al., 2017; Vostanis, 2010) have emphasised the need to provide therapeutic support to children and youth in residential care who have been exposed to adverse conditions in their own families. It is no surprise that TRC centres are more likely to encounter youth who have experienced complex trauma than other treatment settings (Briggs et al., 2012) and that young people may have different responses to TRC as a function of their varying experiences and reactions to trauma (Kisiel et al., 2017).

As a consequence, young people in TRC present with a high prevalence of internalising and externalising symptoms (Águila-Otero et al., 2020). Roughly 68% of adolescents in TRC have been found to be in the borderline or clinical range for internalising symptoms (e.g., anxiety, depression, somatization, social withdrawal) (Trout et al., 2008). This can be serious because many young people suffering with internalising symptoms have histories of self-injurious behaviours and suicidal ideation (Baker et al., 2007; Briggs et al., 2012; Frensch & Cameron, 2002). While

for externalising symptoms (e.g., behavioural problems, aggressive behaviours, rule breaking, drug use), 80% of young people were within the clinical range (Trout et al., 2008).

However, not all empirical evidence supports the maintenance of long-term treatment gains for young people in TRC. In fact, longitudinal research demonstrates little improvement in internalising symptoms of youth (den Dunnen et al., 2012; Frensch & Cameron, 2002) and results of a meta-analysis demonstrated that improvements in internalising symptoms were even smaller than improvements in externalising symptoms (Knorth et al., 2008). However, programmes emphasising behavioural-therapeutic modalities and family involvement showed the most promising results (Knorth et al., 2008). Moreover, there is limited evidence for how TRC actually achieves treatment goals: TRC remains too much a black box (Harder & Knorth, 2015). As such, to gain more durable positive treatment results we need to know more about how results are achieved, rather than investigating merely the achieved results (Harder & Knorth, 2015). Further, additional aspects of the setting, staffing, treatment approach, and safety domains, for example, may provide further indicators of a programme's quality (Farmer et al., 2017).

Studies focusing on 'what works' in (residential) youth care often refer to the so-called non-specific and specific treatment factors (van Yperen et al., 2010). Non-specific treatment factors are those factors that affect the services offered, regardless of the target group or the type of services. Specific treatment factors are only operating regarding certain types of intervention and certain target groups (e.g., Duncan et al., 2010). Non-specific treatment factors, such as the client and relationship factors are considered to be the most important predictors of positive outcomes in child and youth care (Carr, 2009; Karver et al., 2006). Because adolescents typically are not self-referred and often enter treatment poorly aware of their problems, resistant to change,

and/or in conflict with their parents, non–specific treatment factors such as, individual and relationship factors seem to be especially important in this context (Karver et al., 2006).

Specific treatment factors, such as professional and organisational aspects of TRC need more attention in research, such as the skills of group care workers that are necessary to attain and preserve a positive group climate (Kamphof-Evink & Harder, 2011; van Dam et al., 2010; van der Helm et al., 2009) and the type and number of adolescents that is the most optimal for a residential group to be effective (cf. Chipenda-Dansokho & The Centre for Social Policy, 2003; Harder & Knorth, 2007). Only by paying attention to these aspects within the process of TRC, explanations for why programmes work can be generated and used to make improvements (Harder & Knorth, 2015). Further, the use of an evidence-informed model of treatment are strong markers of programmes that are likely to provide good quality care and have a high likelihood of producing positive outcomes for youth when implemented correctly. A quasi-experimental study by Farmer et al. (2016) found that youth who received TRC, adopting the TFM, demonstrated marked improvement in internalising and externalising symptoms between 12 and 16 months, whereas non-TFM youth showed a slight worsening. Nevertheless, there is a need to look beyond labels to identify factors/practices related to better quality of care and outcomes and to identify a succinct set of indicators that may be useful to assess level of quality in TRC (Farmer et al., 2017). It is also crucial to understand what factors contribute to successful long-term outcomes for young people with specific profile characteristics in TRC.

Therefore, due to the wide variety of TRC programmes and young people accessing TRC (Whittaker, 2017), focused research attention and systematic knowledge of what non-specific and specific factors contribute to the success of TRC and reduce young people's internalising and externalising symptoms in TRC is required. Outcomes studies are notoriously difficult to analyse

in sum, as each study may consider a unique definition for outcome depending on the constructs of the study (Hooper et al., 2000). As such, by solely focusing on internalising and externalising symptoms a clearer analysis of the results will be achieved.

There is credible evidence that intervening early can dramatically improve prognosis (Parry, 1992). For example, if an internalising disorder persists into adolescence, it is a major contributor to an enduring mental health disorder throughout adulthood (Colman et al., 2007). Therefore, targeting and treating internalising disorders during adolescence could be a critical juncture, because it may have preventative and long-lasting effects (Marvin et al., 2017). Further, health economic analyses of specialised early intervention find it to be cost-effective in the long term (Hastrup et al., 2013). One treatment does not fit all, or at least one treatment does not fit all completely (Badura Brack et al., 2012). Consequently, the main question that this review will address is: What non-specific and specific treatment factors are associated with lower or greater scores in internalising and externalising symptoms for youth in TRC?

Method

Inclusion and Exclusion Criteria

Inclusion and exclusion criteria for this review are presented in Table 1. The definition of TRC (Whittaker et al., 2015, p. 24) was adapted when evaluating studies for inclusion because of practical concerns. Only the following part was considered: "planful use of a purposefully constructed, multi-dimensional living environment designed to enhance or provide treatment, education, socialisation, support, and protection to children and youth with identified mental health or behavioural needs". As most studies do not report on the extent to which the TRC programme works in partnership with families and in collaboration with a full spectrum of community based formal and informal helping resources (Leipoldt et al., 2019).

Table 1

Inclusion and Exclusion Criteria

Category	Inclusion Criteria	Exclusion Criteria
Intervention Setting	Residential therapeutic programme[a].	Foster care, outpatient setting, combined care, medical setting, hospital setting, school setting and prisons or correctional institutions.
Research Respondents	Young people below the age of 24 with emotional and behavioural problems.	Young people above the age of 24 with autism, a learning disability or intellectual disability.
Key Variables	Internalising/externalising scores[b] and specific and non-specific treatment factors[c].	Qualitative non-structured interpretation of internalising and externalising scores. Functional impairment, risk behaviours, suicide or any other measure that does not specifically report on internalising or externalising symptoms.
Research Methods	Quantitative or mixed study design, intervention, or method, that refers to an empirical study (i.e., there has been data collection and analysis).	Qualitative, case studies and review studies.
Cultural and Linguistic Range	Studies written in or translated to English, Portuguese and Spanish.	Other languages other than English, Spanish and Portuguese.
Time Frame and Publication Type	No time frame restriction applied. Scientific peer-reviewed articles.	Conference abstracts, books, chapters, dissertations and reports.

[a] Definition of residential therapeutic programme: a purposefully constructed multi-dimensional living environment designed to enhance or provide treatment, education, socialization, support, and protection to children and youth with identified mental health or behavioural needs.
[b] Definition of a measure for internalising and externalising scores: Structured scoring criteria.
[C]Non-specific and specific treatment factors associated with internalising and externalising scores.

Evidence Acquisition

This review adhered to the protocol of the preferred reporting items for systematic reviews and meta-analyses (PRISMA-P; Shamseer et al., 2015). A systematic literature search was conducted in July 2021 in the following eight databases with no limits imposed on year of publication: Academic Search Complete, APA PsycArticles, APA PsycInfo, Psychology and Behavioral Sciences Collection, ERIC, MEDLINE, Scopus and Web of science. The keys words that were used in the search were based on the Person, Intervention, and Outcome (PICO) model and are illustrated: a) Person: child* OR adolescen* OR juvenile* OR youth* OR teen* OR young*; b) Intervention: residential care OR therapeutic residential care OR institutional care OR group care OR group home; residential treatment c) Outcome: externali?ing OR internali?ing OR Outcome* OR effectiveness. The search terms between the PICO statements were entered with an AND statement and the search was performed on the field "AllText", except for Web of Science, which was performed on the field "Topic".

Procedure

The search was conducted separately in each database (Scopus and Web of Science) and EBSCO (Academic Search Complete, APA PsycArticles, APA PsycInfo, Psychology and Behavioral Sciences Collection, ERIC, MEDLINE). The results were extracted and uploaded onto EndNote where duplicate records were identified and omitted. The remaining records were then uploaded onto Rayyan QCRI for screening.

The selection procedure was performed in three steps. First, the first author (EC) screened all the records yielded by the search against the inclusion criteria based on the title and abstract only. Second, inter-judge agreement of 30% was made by one independent researcher (SF) to

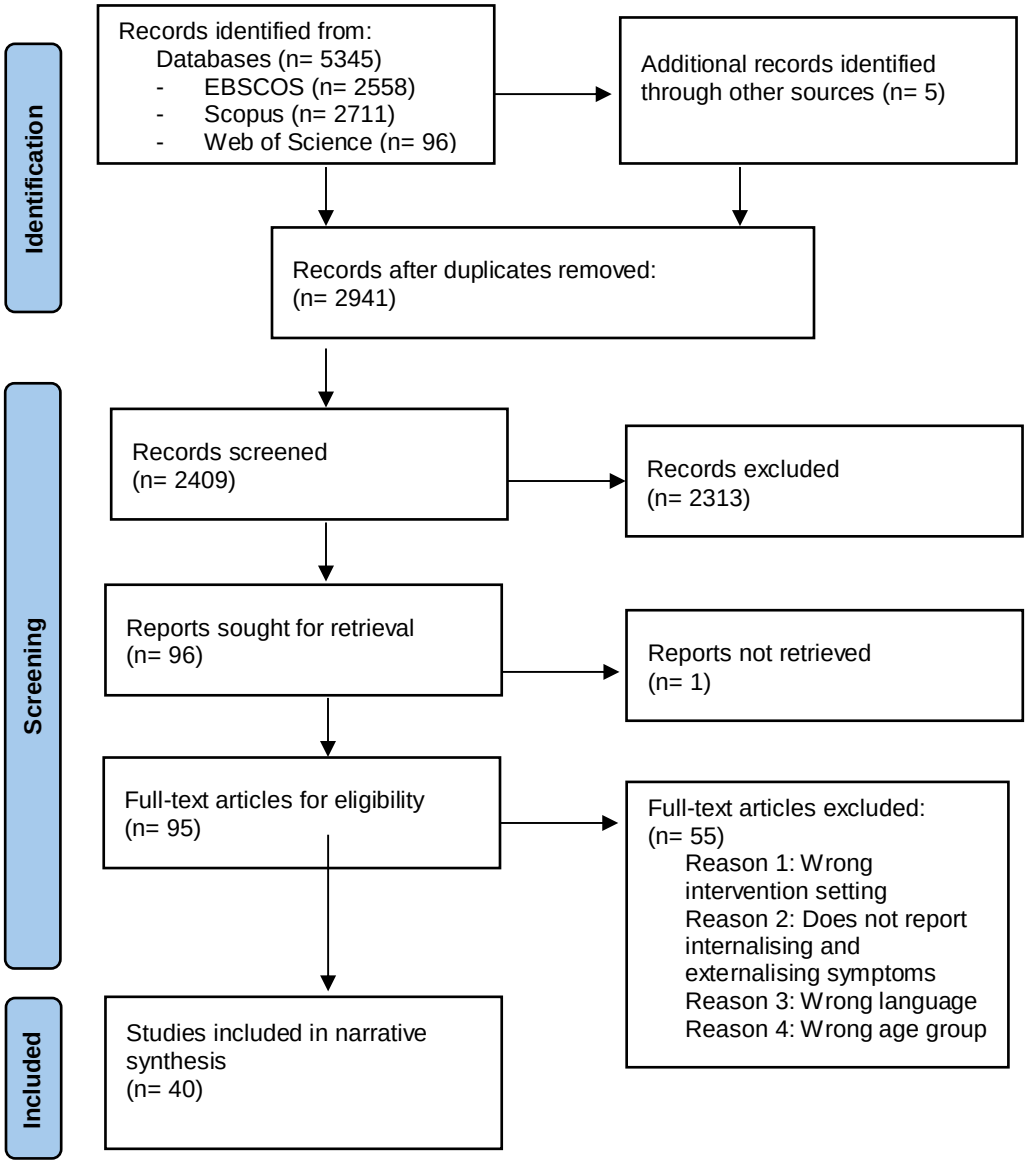
ensure a reliable selection procedure. The second author (EM) also reviewed cases of inclusion uncertainty ($n = 7$) and this was discussed until consensus was reached (EC, SF, EM). Third, the eligibility of the remaining studies was determined by reading the full text (EC, EM). To ensure literature saturation, the reference lists of the included studies were scanned resulting in five additional studies being included.

Data Synthesis and Presentation

Figure 2 presents the inclusion flow chart with the number of identified records at each screening stage (Moher et al., 2009).

Figure 2

Inclusion Flowchart



A total of 2409 studies were identified with the final selection consisting of 40 studies. First, general study characteristics were extracted, such as the country, design, participant statistics, and instruments measuring internalising and externalising symptoms. Studies were also characterised by treatment model or therapeutic intervention depending on the focus of the study i.e., if the purpose of the study was to assess a therapeutic component or the treatment model. Next,

the variables under investigation were extracted and the non-specific and specific treatment factors and their association with internalising and externalising symptoms were reported (See Table 2: Characteristics of studies – methodology and main findings).

This review aims to answer a specific question according to a set of rigid criteria explicitly detailed *a priori* (systematic review) rather than addressing a broader research question (scoping review). It is the explicit and systematic approach that distinguishes systematic reviews from other reviews (Khan et al., 2003), and for that reason we adopted a systematic review approach in this paper.

Table 2

Characteristics of Studies – Methodology and Main Findings

Authors	Country	Treatment Model or Therapeutic Intervention	Design	Sample (size, referral source and mean age in years (SD)[range])	Instruments	Informants	Main Findings for this Review
1.Águila-Otero et al. 2020	Spain	Not specified	Correlational	*N*= 353; CPS 15.61 (1.31) [11-18] Youth: 66% Male	YSR	Youth	**Sex (male)**: < internalising symptoms during placement.
2.Badura Brack et al. 2012	USA	Teaching Family Model (TFM)	Correlational	*N*= 405; Mixed 15.1 (1.62) [9 -19] Youth:60.7% Male	CBCL	Parents Staff	**Sex (male)**: < internalising symptoms from admission to discharge. **Sex (female):** < externalising symptoms at admission.
3.Baker et al. 2005	USA	Not specified	Correlational	*N*= 1,167; CPS 14.44 (2.16) Youth: 74% Male	CBCL	Staff	**Sex (male):** < externalising symptoms at admission.
4.Boel-Studt, 2017	USA	Family Centred Eclectic Approach	Correlational	*N*= 111; Mixed 10.60 (2.6) [5-17] Youth: 59.5% Male	Checklist of Child Behavioural Problems	Parents	**Latent subgroup (not high risk):** < externalising symptoms at admission.
5.Boyer et al. 2009	USA	Not specified	Correlational	*N*= 109; Not specified 9.1 (1.88) [5-12] Youth: 78.9% Male	DSMD	Staff	**Age (+):** < internalising and externalising symptoms at admission and < externalising symptoms at discharge.
6.Chor et al. 2012	USA	Not specified	Correlational	*N*= 544; CPS 14.8 (2.3) Youth: 62.8% Male	CANS	Staff	**Placement decision-making**: > improvement in internalising and externalising symptoms from admission and 18 months post baseline.

Authors	Country	Treatment Model or Therapeutic Intervention	Design	Sample (size, referral source and mean age in years (SD)[range])	Instruments	Informants	Main Findings for this Review
7.Cohen et al. 2016	USA	Trauma-Focused Cognitive Behavioural Therapy (TF-CBT)	Experimental	*N*= 359; Juvenile Justice 15.2 (1.4) [12-17] Youth: 44.5% Male	MFQ	Youth	**TF-CBT:** > improvement in internalising symptoms during placement.
8.Cone & Glenwick, 2001	USA	Job placement	Causal Comparative	*N*= 326; Not specified 13.5 (1.6) [12-17] Youth: 100% Male	CBCL	Staff	**Job placement (moderate work intensity):** > improvement in externalising symptoms during placement.
9.Connor et al. 2004	USA	Not specified	Correlational	*N*= 397; Not specified 13.44 (2.64) Youth: 80% Male	DSMD	Staff	**Sex (male)**: < internalising and externalising symptoms at admission.
10.den Dunnen at al. 2012	USA	Multimodal clinical assessment, milieu therapy, adaptive skill development, parent training and family counseling.	Quasi-Experimental	*N*= 170; Not specified 11.26 (2.46) [6-17] Youth: 79% Male	BCFPI	Parents	**Academic history:** < externalising symptoms from admission to 2 years post treatment. **Baseline symptom severity (-):** < externalising from admission to 2 years post treatment.
11.Doerfler et al. 2009	USA	Not specified	Correlational	*N*= 397; Not specified 13.44 (2.64) Youth: 80% Male	DSMD	Staff	**Sex (male)**: < internalising and externalising at admission. **Sexual and physical Abuse (+):** < internalising and externalising symptoms at admission.
12.Duppong Hurley et al. 2015	USA	TFM	Correlational	*N*= 112; Not specified 15.29 (1.33) [10-17] Youth: 57.1% Male	CBCL SFSS	Staff Youth	**Sex (male)**: < internalising and externalising at admission. **Baseline symptom severity (-):** <

Authors	Country	Treatment Model or Therapeutic Intervention	Design	Sample (size, referral source and mean age in years (SD)[range])	Instruments	Informants	Main Findings for this Review
							internalising and externalising from admission to 6 months into placement. **Therapeutic alliance (+):** < internalising symptoms from admission to discharge. **TFM:** > improvement in externalising symptoms from admission –up to 1 year.
13.Duppong Hurley at al. 2017	USA	TFM	Correlational	*N*= 112; Not specified 15.29 (1.33) [10-17] Youth. 57.1% Male	CBCL	Staff	**Token economy fidelity:** > improvement in internalising externalising symptoms from admission to discharge.
14.Farley et al. 2021	USA	Not specified	Correlational	*N*= 75; CPS 13.75 (2.5) [8-17] Youth: 51% Male	YSR	Youth	**Age (+)**: < externalising during placement. **Sex (male)**: < internalising during placement. **Traumatic experiences (-):** < internalising and externalising symptoms during placement. **Exposure to violence in the home (-):** < externalising during placement.
15.Farmer et al. 2016	USA	TFM	Quasi-Experimental	*N*= 554; Not specified 14.7 (2.0) Youth: 51 % Male	SDQ	Staff	**TFM:** > improvement in internalising symptoms from admission – up to 18 months after baseline and less externalising from admission to 8 months post discharge. **Permissibility of restraint (not permitted):** > improvement in internalising and externalising symptoms from admission to 8 months post discharge.
16.Farmer et al. 2017	USA	TFM	Quasi-Experimental	*N*= 554; Not specified 14.7 (2.0) Youth: 51.7% Male	SDQ	Staff	**Motivation system:** > improvement in internalising and externalising symptoms from admission to discharge.

Authors	Country	Treatment Model or Therapeutic Intervention	Design	Sample (size, referral source and mean age in years (SD)[range])	Instruments	Informants	Main Findings for this Review
							Available resources (+): > improvement in internalising and externalising symptoms from admission to discharge. **Staff training (+):** > improvement in internalising and externalising symptoms from admission to discharge. **Staff approach (+ helpful, fair etc.):** > improvement in internalising and externalising symptoms from admission to discharge.
17.Fields et al. 2006	USA	RE-education model	Correlational	*N*= 98; Not specified 10.7 (1.6) [7 -13] Youth: 87% Male	CBCL	Parent	**Re-education model:** > improvement in internalising and externalising symptoms from admission, discharge, and up to 10 months post-discharge
18.Handwerk et al. 2006	USA	TFM	Correlational	*N*= 2067; Mixed 15.9 (1.78) [11.9-18.6] Youth: 63% Male	CBCL YSR	Parents Young people	**Sex (male)**: < internalising and externalising at admission and < internalising six months into placement.
19.Handwerk et al. 2008	USA	Therapy	Correlational	*N*= 71; Not specified 15.9 (1.78) [11.9 - 18.6] Youth: 52% Male	SS	Youth	**Therapy:** > improvement in internalising and externalising symptoms during placement.
20.Hodgdon et al. 2013	USA	Trauma-Informed Treatment Framework, Attachment, Regulation and Competency (TI-ARC)	Correlational	*N*= 126; CPS 16.1 (1.3) [12.7–19.8] Youth: 100% Female	CBCL	Parents	**TI-ARC:** > improvement in internalising symptoms from admission to discharge

Authors	Country	Treatment Model or Therapeutic Intervention	Design	Sample (size, referral source and mean age in years (SD)[range])	Instruments	Informants	Main Findings for this Review
21.Hussey & Guo, 2002	USA	Not specified	Correlational	*N*= 57; Mixed 9.88 (1.74) Youth: 66.7% Male	DSMD	Staff	**Sex (male):** < externalising at admission and five years following admission. **Age (+):** < internalising and externalising symptoms at admission. **IQ (+):** < internalising and externalising symptoms at admission.
22.Jordon et al. 2009	USA	Not specified	Correlational	*N*= 408; Not specified 14.3 (2.16) Youth: 59% Male	CFARS	Staff	**Person job match effect:** > improvement in externalising symptoms from admission to discharge.
23.Kisiel et al. 2001	USA	Not specified	Correlational	*N*= 114; Not specified [10-18] Youth: 52% Male	CBCL YSR	Parents Youth	**Perceived dissociation (not present):** < internalising and externalising symptoms during placement. **Sexual and physical Abuse (-):** < internalising and externalising symptoms at admission.
24.Larzelere et al. 2001	USA	TFM	Quasi-experimental	*N*= 43; Not specified 13 [6-13] Youth: 48.8% Male	CBCL	Parents Staff	**TFM:** > improvement in internalising and externalising symptoms from admission, discharge, and up to 10 months post-discharge.
25.Leichtman et al. 2001	USA	Intensive Short-Term Residential Treatment	Correlational	*N*= 123; Not specified 14.8 (1.5) Youth: 53% Male	CBCL YSR	Parents Youth	**Intensive short term residential treatment:** > improvement in internalising and externalising symptoms from admission and up to 18 months post baseline.
26.Livhelm et al. 2020	Sweden	Acceptance and Commitment Therapy (ACT)	Quasi-Experimental	*N*= 160; CPS 17.3 [16–18] Youth: Not specified	BYI-II	Youth	**ACT:** > improvement in internalising symptoms during placement.

Authors	Country	Treatment Model or Therapeutic Intervention	Design	Sample (size, referral source and mean age in years (SD)[range])	Instruments	Informants	Main Findings for this Review
27.Marvin et al. 2017	USA	Strong Teens	Quasi-Experimental	*N*= 36; Mixed 14.85 (1.78) Youth: 100% Female	SSIS-S & SSIS-T	Staff Youth	**Strong Teens:** > improvement in internalising and externalising symptoms during placement.
28.McCredie et al. 2017	USA	Dialectical Behaviour Therapy (DBT-A)	Correlational	*N*= 48; Not specified 15.2 (1.24) [12-18] Youth: 46% Male	YSR	Youth	**Sex (female)**: < externalising at admission. **DBT-A:** > improvement in internalising and externalising symptoms from admission to discharge.
29.Meyerson et al. 2002	USA	Residential Vocational Training Programme	Correlational	*N*= 131; Juvenile Justice 16.9 (.73) [16-18] Youth: 55.4% Male	BDI-II	Staff	**Family:** < internalising symptoms during placement.
30.Noftle et al. 2011	USA	Not specified	Correlational	*N*= 255; Not specified 11.72 (2.55) [6-17] Youth: 75.6% Male	BCFPI	Parents	**Baseline symptom severity (-):** < internalising and externalising symptoms from admission to discharge.
31.Rovers et al. 2019	Netherlands	Multisystemic Therapy (MST)	Correlational	*N*= 86; Juvenile justice 15.2 (1.2) Youth: 63% Male	CBCL	Parents	**MST:** > improvement in externalising symptoms from admission to discharge.
32.Scholte & Van Der Ploeg, 2000	Netherlands	1) Behaviour Modification 2)Psychodynamic Treatment 3) Adventurous Learning	Correlational	*N*= 200; Not specified 15.3 (1.7) Youth: 67% Male	CBCL	Youth	**Treatment completion:** > improvement in externalising symptoms from admission, at six months, 1.5 years and 2 years. **CBT:** > improvement in externalising symptoms from admission, at 6 months, 1.5 years and 2 years. **Therapeutic climate** (+ structure and control): > improvement in externalising symptoms from admission, at 6 months, 1.5 years and 2 years.

Authors	Country	Treatment Model or Therapeutic Intervention	Design	Sample (size, referral source and mean age in years (SD)[range])	Instruments	Informants	Main Findings for this Review
33.Scholte & Van Der Ploeg, 2006	Netherlands	1) Behaviour Modification 2)Psychodynamic Treatment 3) Adventurous Learning	Quasi-Experimental	*N*= 98; Not specified 14.9 (1.9) Youth: 75% Male	CBCL	Parents	**Behaviour modification programme:** > improvement in externalising symptoms from admission and up to 1 year from baseline. **Psychodynamic treatment:** > improvement in externalising symptoms from admission and up to one year from baseline. **Adventurous learning:** > improvement in externalising symptoms from admission and up to 1 year from baseline.
34.Sunseri, 2004	USA	Not specified	Correlational	*N*= 8933; CPS [8-19] Youth: Not specified	SDRS	Staff	**Family functioning (+):** < externalising symptoms from admission to discharge.
35.Sunseri, 2020	USA	Not specified	Correlational	*N*= 18,046; Not specified 14.7 [5-.20] Youth: 61.5% Male	CPS	Staff	**Family functioning (+):** < externalising symptoms from admission to discharge.
36.Thoder & Cautilli, 2011	USA	Mode Deactivation Therapy (MDT)	Quasi-experimental	*N*= 39; Juvenile Justice [14-17] Youth: 100% Male	CBCL YSR DSMD	Staff Youth	**MDT:** > improvement in externalising symptoms during placement.
37.Tyler et al. 2019	USA	Trauma Informed Residential Treatment (TI-TFM)	Correlational	*N*= 1096; Not specified 15.7 (1.6) [9-18] Youth: 66% Male	SDQ	Staff	**Sex (female)**: < externalising at admission. **Trauma symptoms (-):** < internalising from admission to discharge.

Authors	Country	Treatment Model or Therapeutic Intervention	Design	Sample (size, referral source and mean age in years (SD)[range])	Instruments	Informants	Main Findings for this Review
38.Vohra et al 2019	USA	Mindfulness-Based Stress Reduction (MBSR)	Experimental	*N*= 81; Voluntary [12-18] Youth: 64.1% Male	BASC-2	Staff	**MBSR:** > improvement in internalising symptoms during placement.
39.Warner et al. 2014	USA	Sensory Motor Arousal Regulation Treatment (SMART)	Quasi-experimental	*N*= 31; Voluntary 16 [13-20] Youth: 10% Male	CBCL	Staff	**SMART:** > improvement in internalising symptoms from admission, discharge, and up to 10 months post-discharge.
40.Zegers et al. 2008	Netherlands	Competency based aimed to stimulate ‘‘positive personality development’’	Correlational	*N*= 61; Mixed 15.7 (1.4). [13-20] Youth: 30% Male	CBCL	Staff	**Attachment representations (unresolved/disorganised adolescents)**: < externalising symptoms at admission.

Note: Youth Self Report (YSR); Child Behaviour Checklist (CBCL); Devereux Scales of Mental Disorders (DSMD); Child and Adolescent Needs and Strength (CANS); Mood and Feelings Questionnaire (MFQ); Brief Child and Family Phone Interview (BCFPI); Symptoms Functioning Severity Scale (SFSS); Strengths and Difficulty Questionnaire (SDQ); Symptom Checklist (SS); Child Functional Assessment Rating Scale (CFARS); Beck Youth Inventories – Second Edition (BYI-II); Social Skills Improvement System (SSIS-S & SSIS-T); Student Data Reporting System (SDRS); Child Problem Checklist (CPS); Behavioural Assessment System for Children (BASC-2)

Results

Study Characteristics

The characteristics of the included studies are shown in Table 2. Nearly all (*n*= 35, 85.4 %) studies were performed in the USA, with only six studies performed in European countries. Sample sizes ranged from 31-18,046 participants. After correcting for studies that have re-used samples, this review involves 37,487 participants (with an age range 5-20). Most studies specified the treatment model (*n*= 13, 32.5%) or the therapeutic intervention (*n*= 14, 35 %), followed by those that did not specify the treatment model or therapeutic intervention (*n*= 13, 32.5 %). The treatment models included the TFM (*n*= 7, 17.5%), Family Centred Eclectic Approach (*n*= 1, 2.5%), Trauma Informed Model (*n*= 2, 5%), Re-Education Model (*n*= 1, 2.5%), and Sensory Motor Arousal Regulation Treatment (SMART) (*n*= 1, 2.5%). Most therapeutic interventions included behavioural therapeutic modalities (*n*= 8, 20%), followed by psychodynamic treatment (*n*= 2, 5 %), Adventurous Learning (*n*= 2, 5%), intensive short-term treatment (*n*= 1, 2.5%), vocational training (*n*= 1, 2.5%) Competency based treatment (*n*= 1, 2.5%), parent training and family counselling (*n*= 1, 2.5%) and Multisystemic Therapy (MST) (*n*= 1, 2.5%).

Most studies employed a correlational research design (*n*= 28, 70%) or quasi-experimental (*n*= 9, 22.5%) or experimental (*n*= 2, 5%) or causal comparative (*n*= 2.5 %). Most studies did not specify the referral source (*n*= 21, 52.5%), followed by CPS (*n*= 7, 17.5 %), and those that specified mixed referral sources (*n*= 6, 15%), juvenile justice (*n*= 4, 10%) and those who were referred voluntarily (*n*= 2, 5%). A total of 22 outcome variable scales measuring internalising and externalising symptoms were reported in forty studies but only four scales were replicated by other studies. CBCL appeared in 16 studies, the Youth Self – Report (YSR) appeared in seven studies, The Devereux Scales of Mental Disorders (DSMD) appeared in five studies and the Strengths and Difficulty Questionnaire (SDQ) appeared in

three studies. Most studies were concerned with factors associated with internalising and externalising symptoms (*n* = 22, 55%), followed by factors associated with externalising symptoms (*n* = 11, 27.5%) and factors associated with internalising symptoms (*n* = 7, 17.5%).

Specific and Non-specific Treatment Factors

A total of six non-specific treatment factors and five specific treatment factors associated with lower or greater internalising and externalising symptoms were reported in 40 studies (see Table 2). Of the six non-specific treatment factors, 12 sub-factors were identified: **1) Individual** (sex, age, IQ, latent sub-group; **2) Family; 3) Academic History; 4) S**ymptoms (baseline symptom severity, trauma symptoms, perceived dissociation; **5) Abuse and Trauma History** (sexual and physical abuse, traumatic experiences, exposure to violence in the home) and **6) Relationships** (therapeutic alliance and attachment representation). Of the five specific treatment factors, 27 sub-factors were identified: **1) Treatment model** (TFM, Trauma-Informed Treatment Framework, Attachment, Regulation and Competency [TI-ARC], Re-Education Model, SMART, permissibility of restraint); **2) Therapeutic Intervention** (nine behavioural therapeutic modalities: Acceptance and Commitment Therapy [ACT], Dialectical Behaviour Therapy [DBT-A], Mindfulness-Based Stress Reduction [MBSR], Trauma-Focused Cognitive Behavioural Therapy [TF-CBT], Cognitive Behavioural Therapy [CBT], Strong Teens, behaviourally focused treatment, Mode Deactivation Therapy [MDT], behaviour modification programme; MST, Psychodynamic Treatment, Adventurous Learning, therapy, token economy fidelity, motivation system, intensive short term residential treatment, job placement and treatment completion); **3) Placement Decision Making; 4) Environment** and **5) Staffing** (staff training, **s**taff approach, person job-match effect and therapeutic climate). Non-specific sub-factors, such as `sex´ appeared in 10 studies, `sexual and physical abuse` and `age´ appeared in four studies, `baseline symptom severity´ appeared in three studies and all

other non-specific treatment sub-factors appeared in one study and were not replicated. Specific treatment sub-factors, such as ´TFM´ appeared in three studies while all other sub-factors appeared in one study only and were not replicated.

Non-Specific Treatment Factors

Individual. Findings for sex differences in internalising and externalising symptoms at admission are inconsistent. In four studies, males exhibited lower levels of staff or parent reported internalising and externalising symptoms at admission as measured by the DSMD or CBCL compared with females (Connor et al., 2004; Doerfler et al., 2009; Duppong Hurley et al., 2017; Handwerk et al., 2006). Further, a longitudinal study found that males were judged to be less externalising on the DSMD at any point in time by 6.12 (p<:01) from admission to five years after baseline as reported by staff (Hussey & Guo, 2002). While findings for five studies, spanning multiple data collection points over time also obtained similar results for internalising symptoms. Males had lower internalising symptoms compared with females (Águila-Otero et al., 2020; Badura Brack et al., 2012; ; Duppong Hurley et al., 2017; Farley et al., 2021; Handwerk et al., 2006; Hussey et al., 2012) as measured by the YSR, CBCL, DSMD and reported by youth, parents and staff.

In contrast, two studies agreed that males had lower externalising symptoms, but not internalising symptoms as measured by the CBCL or DSMD and reported by staff (Baker et al., 2005; Hussey & Guo, 2002). Three studies also reported conflicting results. Females had lower externalising symptoms at admission than males (Badura Brack et al., 2012; Tyler et al., 2019; McCredie et al., 2017) as measured by either the CBCL, SDQ or YSR and reported by parents, staff and youth.

Regarding age**,** two studies found that older age was negatively associated with severity on the DSMD total score (i.e., internalising and externalising symptoms) at admission

(Boyer et al, 2009; Hussey et al., 2002) and discharge (Boyer et al., 2009). In fact, a one-year increase in age at the initial rating decreased the DSMD total score by 1.13 (p<:05). In another study, older age was associated with lower externalising symptoms at admission as measured by the SDQ and reported by staff (Tyler et al., 2019).

In relation to cognitive characteristics, a study found that a one unit increase in I.Q. score decreased the DSMD total score by 0.14 (p<.01) as reported by staff (Hussey & Guo, 2002). Finally, following a latent class analysis to identify youth subtypes in TRC, one study found that young people in the high-risk subgroup scored higher on nearly all measures of the Child Behavioural Problems including the cumulative number of behaviour problems (F (3, 441) = 9.69, p<.001) (Boel-Studt, 2017).

Family. In two studies, children from high functioning families had on average lower externalising symptoms from admission to discharge relative to children from intermediate and low functioning families as measured by the Student Data Reporting System (SDRS) and Child Problem Checklist (CPS) and reported by staff (Sunseri, 2004, 2020). Further, one study found that higher family cohesion was related to lower levels of depression for males during placement as measured by the Beck Depression Inventory-Second Edition (BDI II) and reported by staff (Meyerson et al., 2002).

Academic History. One study found that lower externalising scores and higher school participation and achievement prior to treatment accounted for 17% of the variance with externalising scores two years post treatment as measured by the Brief Child and Family Phone Interview (BCFPI) and reported by parents (den Dunnen et al., 2012).

Symptoms. Regarding Baseline Symptom Severity, in three studies spanning multiple data collection points over time, those with lower parent reported internalising and externalising symptoms at admission remained lower across the trajectory and vice-versa as measured by the BCFPI and CBCL. Similarly, another study found that the low-trauma

symptom group had less emotional problems (*M*=3.10, *SE*=.13) than youth in the high trauma symptom group (*M*=4.17, S*E*=.15) as measured by the SDQ and reported by staff (Tyler et al., 2019). Specifically, one study found that perceived dissociation was a significant covariate for the internalising (F (1,95) = 66.7, p<0.001) and externalising problem scale (F (1,95) = 80.2, p <0.001) as measured by the CBCL and reported by staff. The main effect for sexual abuse on these scores was eliminated after dissociation was controlled for. Further, experienced dissociation was a significant covariate for both total score (F (1,93) = 40.9, p<0.001) and the externalising symptoms *(*F (1,93) = 18.8, p<0.001) as measured by the YSR and reported by youth (Kisiel et al., 2001).

Abuse and Trauma History. In two studies, youth who had not experienced sexual abuse and both physical and sexual abuse had lower anxiety symptoms at admission compared to youth who had been sexually or physically abused as measured by the YSR and DSMD and reported by youth and staff (Badura Brack et al., 2012; Doerfler et al., 2009) including one year after baseline (Badura Brack et al., 2012). Another study found that children with a history of sexual abuse had higher scores for internalising symptoms (F (1, 105) =10.8, p<0.01) and externalising symptoms (F (1, 105) =4.32, p<0.05) and higher total scores were seen in children with histories of physical abuse (F (1, 105) =4.13, p<0.05) and sexual abuse (F (1, 105) =9.0, p<0.01) as reported by parents. In the same study, there were only main effects for sexual abuse with higher total scores (F (1, 106) =4.81, p<0.05) and higher externalising symptoms (F (1,106) =4.11, p<0.05) on the YSR as reported by youth. Further, youth who had not experienced sexual abuse only or had not experienced both sexual and physical abuse had significantly lower DSMD externalising disorders scale scores than youth who had as reported by staff.

Furthermore, one study found that trauma history was significantly related to externalising symptoms and sex significantly moderated that relationship. Males with high

levels of trauma reported higher externalising symptoms. Trauma was significantly related to internalising symptoms (p= .033), and this relationship was independent of individuals' SEX (p= .729) as measured by the YSR and reported by youth (Farley et al., 2021). Finally**,** one study found that not being exposed to violence in the home was positively related to externalising symptoms only (Farley et al., 2021).

***Relationships*.** One study found that youth who developed higher quality alliance with their family-teachers and experienced larger percentages of positive interactions, had significantly lower CBCL total scores at six months after accounting for differences in intake behaviour severity, youth age, and youth sex (Duppong Hurley et al., 2017). Moreover, attachment representation was also identified in a study, where unresolved/disorganised adolescents had lower externalising symptoms than preoccupied adolescents at admission as measured by the CBCL and reported by staff (Zegers et al., 2008).

Specific Treatment Factor

Treatment model. Four treatment models were identified in this review. In three studies, spanning multiple data collection points over time, youth receiving the TFM improved significantly on the CBCL, SDQ and the Symptoms Functioning Severity Scale (SFSS) and maintained those gains at follow-up as reported by youth, staff and parents (Duppong Hurley et al., 2015; Farmer et al., 2016; Larzelere et al., 2001). Moreover, in a study focusing on the TI-ARC, there was a decline in CBCL externalising and internalising symptoms from admission to discharge which was statistically significant, from a clinical perspective, however, the overall degree of change was modest as reported by parents (Hodgson et al., 2013).

In one study, youth showed substantial and significant improvement during TRC using the Re-Education model: [baseline to discharge CBCL: F = 77.29 (p< .0001)]. After discharge, there was a slight deterioration of improvements [discharge to six months: CBCL: F = 4.48 (p=

.04)] but results at six months post discharge remained significantly better than at the time of programme entry [baseline to six months post discharge: CBCL: $F = 37.92$ ($p < .0001$)] as reported by parents (Fields et al., 2006). In another study, a repeated measure ANOVA on the CBCL Internalising scale demonstrated a significant reduction in symptoms from pre-to post-treatment ($F = 7.286$; $p = .011$) in the SMART group as reported by parents (Warner et al., 2014).

In addition to the specific treatment models identified, one study found that the initial indicator of safety-permissibility of restraint by the treatment model was significantly associated with outcomes by eight months post-discharge. Net of treatment model, agencies that permitted restraint showed significantly worse outcomes than those that forbid it ($b = 3.0$, $p < .01$) as measured by the SDQ and reported by staff (Farmer et al., 2017).

Therapeutic Intervention. In four studies, youth receiving behavioural therapeutic modalities (ACT, MBSR, TF- CBT, Strong Teens) during placement in TRC experienced a reduction in internalising symptoms after receiving therapy as measured by the Beck Youth Inventories-Second Edition (BYI-II), Behavioural Assessment System for Children (BASC-2), Mood and Feelings Questionnaire (MFQ) and Social Skills Improvement System (SSIS-S & SSIS-T) and reported by youth and staff (Cohen et al., 2016; Livheim et al., 2020; Marvin et al., 2017; Vohra et al., 2019). In one study, measures of the DSMD, the CBCL and YSR show a significant decrease in antisocial behaviours from baseline to post MDT scores (Thoder & Cautilli, 2011). While in another study, youth receiving DBT-A experienced a reduction in both YSR internalising and externalising symptoms from admission to discharge as reported by youth. (McCredie et al., 2017). Lastly, in two studies, CBT and behaviourally focused treatment was associated with a reduction in CBCL scores (Scholte & Van Der Ploeg, 2000; Badura Brack et al., 2012) as reported by youth, staff and parents. Further, results suggested

that CBT was associated with a bigger reduction in CBCL scores when compared to social skills and psychodynamic therapy (Scholte & Van Der Ploeg, 2000).

In one study, youth in either a behaviour modification programme, psychodynamic treatment or adventurous learning for one year experienced a bigger reduction in CBCL externalising symptoms than internalising symptoms. Also, behavioural improvements varied across programmes. Adventurous learning, for example, had almost twice the gains shown in the standard behaviour modification programme and the psychodynamic treatment lay somewhat in between (Scholte & Van Der Ploeg, 2006). In one study, externalising symptoms decreased at the end of MST as measured by the CBCL and reported by parents (Rovers et al., 2019). Also, one study found that youth ratings on a symptom checklist showed substantial improvements, and much of the improvement occurred early in the therapy (Handwerk et al., 2008). In relation to therapeutic strategies, one study found that token economy fidelity ($b = -0.62$, $\beta = -.35$, $p < .05$) was a statistically significant predictor of six-month CBCL scores as reported by staff (Duppong Hurley et al., 2017). In another study, observational data suggested that homes with more positively focused motivational systems had outcomes that were significantly better by the time of discharge than those with more punitively focused systems ($p < .001$) (Farmer et al., 2017).

In a study on intensive short residential treatment (emphasis on work with families, involvement in community activities, and discharge planning), the mean CBCL and YSR Tscores for internalising, externalising, and total problems indicated a significant decline in internalising and externalising symptoms from admission to three months post discharge as reported by parents, staff and youth (Leichtman et al., 2001).

In one study, youth enrolled in the campus work programme with moderate work intensity (9-13 hours worked weekly) experienced a reduction in externalising symptoms,

while the benefits of work duration (i.e., total weeks worked) were maximised at about 52 weeks of work as measured by the CBCL and reported by staff (Cone & Glenwick, 2001).

In one study, the number of youth expressing externalising symptoms on the YSR six months after admission dropped amongst the stayers. However, externalising problems remained constant amongst the dropouts, which established a significant difference in the number of youth expressing externalising symptoms at a clinical level between both groups which persisted in the second follow-up and two years after admission as reported by youth (Scholte & Van Der Ploeg, 2000).

Placement Decision Making. In one study, youth assigned to residential placements consistent with the decision support algorithm based on ratings on Child and Adolescent Needs and Strengths (CANS) (i.e., the concordant group) experienced more positive clinical changeover time, particularly on behavioural and emotional symptomatology, than youth assigned to residential placements that were inconsistent with the decision support algorithm (i.e., the discordant group) as reported by staff (Chors et al., 2012).

Environment. In one study, homes with more age/interest appropriate items (e.g., equipment, toys, games, books) showed better outcomes by the time of discharge than homes with less adequate items in this arena ($p < .001$), even after considering the home's treatment model and severity and demographics of the youth as measured by the SDQ and reported by staff (Farmer et al., 2017).

Staffing. In one study, programmes that required more preservice training showed better outcomes ($p < .01$) by discharge as measured by the SDQ and reported by staff. (Farmer et al., 2017). In the same study, staff who were rated as using more appropriate humour in their interactions with youth showed better outcomes by eight months post discharge ($p < .05$) and all youth who saw their group home staff as fairer and helping them learn things were more likely to have positive outcomes by the time they were discharged ($p < .05$) as measured by the

SDQ and reported by staff. In the same vein, one study found that a therapeutic climate of more structure and control (firm but not harsh control, clear but not obstructive emotional support) promoted a decrease in externalising symptom as measured by the CBCL and reported by youth (Scholte & van Der Ploeg, 2000).

Finally, the only organisational result that emerged in the expected direction involved front-line staff perceptions of community and externalising behaviour scores: a greater person-job match Effect of organizational climate on youth outcomes on community was associated with greater improvement on the Child Functional Assessment Rating Scale (CFARS) on the externalising behaviours scale as reported by staff (Jordon et al., 2009).

Discussion

The current study aimed to identify what non-specific and specific treatment factors are associated with lower or greater internalising and externalising symptoms. A total of six non-specific treatment factors (individual, family, academic history, symptoms, abuse and trauma history and relationships) and five specific treatment factors (treatment model, therapeutic intervention, placement decision making, environment, and staffing) were identified and reported in 40 studies.

Non-specific Treatment Factors

Identifying non-specific treatment factors associated with internalising and externalising symptoms in TRC provides insight into how individual profile characteristics affect how young people respond to TRC from admission to post-discharge. It emphasises the need for TRC to strategically include programme elements in light of these non-specific treatment factors so strategic and tailored support can be delivered.

For example, sex was the non-specific treatment factor most explored in the literature revealing distinct profiles for males and females. Findings appeared to indicate that females in

TRC are more impaired than their male counterparts (Águila-Otero et al., 2020; Badura Brack et al., 2012; Baker et al., 2005; Connor et al., 2004; Doerfler et al., 2009; Duppong Handwerk et al., 2006; Duppong Hurley et al., 2017; Hussey & Guo, 2002; Farley et al., 2021). Yet females showed a significantly higher reduction in these symptoms than males did (Connor et al., 2004; Handwerk et al., 2006; Hooper et al., 2000). It might be that those with more severe disturbances respond better to TRC than those with less severe disturbances (Hoagwood & Cunningham, 1992) and this may be particularly true for internalising symptoms (Connor et. al., 2004; Hooper et al., 2000).

The history of abuse and trauma factor may explain the complicated presentations of females in TRC. In fact, females were more likely to experience sexual abuse or both sexual and physical abuse (Badura Brack et al., 2012; Connor et al., 2004; Hussey & Guo, 2002) and be exposed to violence and trauma (Farley et al., 2021). The linkages between abuse, trauma, violence, and internalising and externalising symptoms can be explained through a developmental trauma framework that suggests maltreatment and violence may be the underpinning of some youths' expressions of internalising and externalising symptoms (van der Kolk, 2017). These findings demonstrate that females may respond well to therapeutic modalities that focus on complex trauma e.g., sexual abuse and, males, may require additional tailored support to enhance progress and experience an increased reduction in symptoms over-time.

Findings for older youth may indicate the high thresholds of social and psychiatric deterioration required before gatekeepers in child serving systems can justify decisions to place young children in congregate care settings (Hussey & Guo, 2002). However, older age was also related to less substantial change during treatment on the CBCL and BERS as reported by parents (Fields et al., 2006). It is possible that female younger youth with more severe internalising and externalising symptoms at admission respond better to TRC than older male

youth whose symptoms are less severe. Services should adapt provision to these individual characteristics to meet their needs.

Not having experienced sexual and physical abuse, traumatic experiences or having witnessing violence in the home were associated with lower internalising and externalising symptoms (Badura Brack et al., 2012; Doerfler et al., 2009; Farley et al., 2021 Kisiel et al., 2001). Further, youth without a history of physical and sexual abuse were more likely to be classified as improved in comparison to those with a history of physical and sexual abuse (Connor et al., 2004). The absence of abuse and trauma history may also explain the presentation of the not high-risk subgroup (Boel-Studt, 2017). A regression analyses indicated that youth exposed to more traumas had significantly greater risk behaviours than youth exposed to fewer traumas (b = 0.24, p\0.001) after controlling for SEX, age, and race (Harr et al., 2013). This suggests that young people with a greater history of abuse and trauma may have greater risk behaviours and experience less improvement in TRC. It might be that these young people need more time to heal as it may take longer to build trusting relationships with staff.

Higher family functioning was also identified as a very important non-specific treatment factor in studies including very large samples of youth (8,933 and 18,046) (Sunseri, 2004, 2020). In fact, family/parent involvement is acknowledged as improving short-and long-term outcomes after a stay in TRC (Frensch & Cameron, 2002; Hair, 2005; Lakin et al., 2004). Indeed, young people in contact with their biological parents while in care experience emotional growth and better functioning in adulthood (Ainsworth, 1989; Weiner & Kupermintz, 2001). It may be that young people with higher family functioning are more likely to be involved with their child during their stay in TRC than those whose family are less functioning. This suggests that what is crucial here is treating the family as a whole (Sunseri, 2004, 2020) to improve family functioning and involvement. The shift to increase family involvement may not only address the youth's struggles but also contextual factors that may

be underlying the emotional manifestations of their struggles such as pressures to conform to traditional gender roles (Farley et al., 2021). Targeting ecological factors, such as family functioning and education may increase the likelihood of better behavioural, educational, and familial outcomes (Sunseri, 2004, 2020; den Dunnen et al., 2012).

Findings also revealed that regarding symptoms, it is important to appreciate that the children who entered treatment with a comparatively higher severity of symptoms were still likely to exit treatment with greater severity of symptoms (den Dunnen et al., 2012; Duppong Hurley et al., 2017; Noftle et al., 2011). The nature of symptoms, such as the presence of trauma symptoms or the absence of perceived disassociation may also be important to consider (Kisiel et al., 2001; Tyler et al., 2019). Some suggest that to improve outcomes of youth in TRC, more needs to be known about specific constellations of mental health symptoms (den Dunnen et al., 2012; Frensch & Cameron, 2002).

Not having experienced sexual and physical abuse, traumatic experiences or having witnessing violence in the home were associated with lower internalising and externalising symptoms (Badura Brack et al., 2012; Doerfler et al., 2009; Farley et al., 2021; Kisiel et al., 2001). Further, youth without a history of physical and sexual abuse were more likely to be classified as improved in comparison to those with a history of physical and sexual abuse (Connor et al., 2004). As expected, high rates of physical and sexual abuse were observed This suggests that young people may experience less improvement in TRC and need more time to heal as if may take longer to build trusting relationships with staff.

Stronger therapeutic alliance and attachment representations were associated with lower internalising (Duppong Hurley et al.,2017) and externalising symptoms (Zegers et al., 2008). It will be important to begin to examine how youth ratings of therapeutic alliance change during TRC (Duppong Hurley et al., 2015), and to better understand what factors improve youth and staff ratings of therapeutic alliance (Duppong Hurley et al., 2017). This will provide

insight in how staff can build trusting relationships with young people and develop a strong therapeutic alliance over time.

Specific Treatment Factors

Specific treatment factors shed light on the various therapeutic components of TRC. Understanding these factors can help understand what the best treatment options are for young people in TRC.

For example, TFM was the treatment model most explored and with the most convincing results. These findings are consistent with a review of treatment models for group homes and residential care where more studies evaluated the effectiveness of TFM compared to any other treatment model and was rated as promising (James, 2011). While all three other treatment models (TI-ARC, Re-Education model, SMART) identified in this review were evaluated in one study using mostly a correlational or quasi-experimental design and were informed by parents only (Hodgson et al., 2013; Fields et al., 2006; Warner et al., 2014). Although, these treatment models also indicate positive results, as single-sample studies, results must be interpreted with caution. Utilising a "name brand" programme does not assure high quality implementation or fidelity (James et al., 2017; Lee & McMillen, 2017). Judging the quality of the interventions implies recognising and clarifying all the variables involved (Farmer et al., 2017).

In addition to the treatment models identified, the initial indicator of safety-permissibility of restraint by the treatment model was identified (Farmer et al., 2016). This is in line with evidence that suggests that physical restraint has a lack of therapeutic effect (Duke et al., 2014) and a potential to worsen behaviours (Crocker et al., 2010; Duke et al., 2014). Behavioural therapeutic modalities were mostly identified (ACT, DBT-A, MBSR, TF-CBT, CBT, Strong Teens, Behaviourally Focused Treatment, MDT, Behaviour Modification

Programme) as being associated with greater improvements in internalising and externalising symptoms. CBT was associated with a bigger reduction in CBCL scores when compared to social skills and psychodynamic therapy (Scholte & van Der Ploeg, 2000). However, other therapeutic modalities appeared to also have promising results (psychodynamic treatment, adventurous learning, MST) (Rovers et al., 2019; Scholte & van Der Ploeg, 2000). Adventurous learning, for example, had almost twice the gains shown in the standard behaviour modification programme and the psychodynamic treatment lay somewhat in between (Scholte & van Der Ploeg, 2006). This suggests that other therapeutic modalities are worth exploring beyond behavioural therapeutic modalities.

In relation to therapeutic strategies, token economy and homes with more positively focused motivational systems had outcomes that were significantly better by six months and at the time of discharge (Farmer et al., 2017). Findings about youth's views are consistent with qualitative youth-focused research. Indeed, youth report that the use of negatively focused behaviour management or motivational systems results in harsh and punitive living environments which lead to negative emotional consequences for youth (Rauktis, 2016). This also suggests that including youths' views may also shed light on important non-specific and specific treatment factors that may be important and further validate the quantitative results.

Further, a more ecological approach to treatment that involves both the family and the community, such as Intensive short residential treatment may be more effective in significantly reducing internalising and externalising symptoms (Leichtman et al., 2001). The family factor may explain these findings, as this approach requires youth to have a support system to which they can be discharged and most of the sample in this study had a family system or the equivalent to which they could return. While many came from homes in which there was stress and psychopathology it makes sense that families maybe more higher functioning than those

youth whose families would not be able to participate. As previously highlighted, family involvement in treatment may explain the effectiveness of this more focused approach.

Placement decision making was also identified as a factor related to clinical change in internalising and externalising symptoms (Chors et al., 2012). The practice of evidence-based placement decisions is rare, especially those resulting in TRC (Frensch & Cameron, 2002). Yet overall clinical findings from this study lend support to the importance of informed placement decision-making as a predictor of internalising and externalising symptoms, even in TRC for which research findings on effectiveness at times have been inconclusive (Epstein, 2004).

The only environmental factor identified was related to available resources. It appears that a relatively short and simple set of domains could capture key elements that may help identify programmes that are more or less good for producing positive outcomes for youth (Farmer et al., 2017) and that the environment is a critical factor to consider that requires further exploration.

Lastly, staffing was identified as an important factor. Results suggest that staff training is an essential component for staff to be able to deal with the pressures and challenges of working in TRC (Leipoldt et al., 2019). Including a clear structure and good relationships between staff and youth, illustrates the importance of a positive social climate (van Yperen et al., 2010). Therefore, staff training centred around preserving a positive social climate in TRC may assist staff in being more responsive to the needs of young people. For example, staff can gather information regarding the strengths of the young people and ask how these strengths can help them during treatment (Leipoldt et al., 2019).

Limitations and Future Recommendations

Despite these meaningful findings, some limitations have been identified and recommendations for future research are highlighted. More longitudinal studies are needed that

focus on non-specific treatment factors associated with lower and greater internalising and externalising symptoms to begin to understand the long-term impact of TRC on youth. For example, for specific treatment factors, the largest timeframe examined was from admission to two years or 10 months post-discharge. The timeframe examined in future studies should exceed this timeframe if we are to understand if long-term gains are supported.

It is also possible that due to outcome being restricted to internalising and externalising symptoms that important factors have been missed. Research into TRC varies in what is being considered at follow-up period, with most studies focused on treatment completion, length of treatment, and type of discharge setting (den Dunnen et al., 2012). Therefore, more research is required to replicate and explore possible specific and non-specific treatment factors associated with internalising and externalising symptoms. For example, process factors, such as youth motivation to change, expectations of treatment, and hopefulness for the future would be of interest (Duppong Hurley et al., 2017). Further, additional aspects of the setting, staffing, treatment approach, and safety domains, for example, may provide further indicators of a programme's quality (Farmer et al., 2017). In this review, for example, factors related to setting and safety domains were only explored in one study (Farmer et al., 2017) and most sub-factors were also supported by one study only. As a single-sample study, results must be interpreted cautiously, and findings may be applicable only to populations who share the same characteristics as this sample (Hussey & Guo, 2002). Therefore, drawing on additional treatment sites and profile characteristics would allow for increased generalisation of the results.

It is also important to note that a critical appraisal of the included studies was not conducted. It is highly likely that the included studies may have some degree of bias in their results. For example, most studies were correlational in nature and so cause and effect cannot be established. Conducting experimental studies in real-world settings, especially with

vulnerable youths continues to be an extraordinary challenge that is often abandoned for pragmatic, as well as ethical reasons (e.g., Gustavsson & MacEachron, 2007). Therefore, the non-specific and specific treatment factors identified in this systematic review aim to provide a base for further exploration.

Implications for Practice in TRC

To the best of our knowledge, this is the first systematic review to focus on non-specific and specific treatment factors associated with internalising and externalising symptoms in TRC. Not only does this systematic review identify factors related to better outcome and quality of care, but it also provides a conceptual framework that TRC can adapt to inform service provision and monitor the quality of care provided. The findings from this review support the Boel-Studt (2017) perspective that TRC should include general components with relevance to the majority of youth and for specified approaches targeted to subgroups. Identifying shared characteristics, such as non-specific and specific treatment factors that remain even when the sample has been disaggregated into distinct classes is important for determining programme elements that should be general features of a TRC programme (Boel-Studt, 2017).

Furthermore, although challenging, the key to helping children with very serious mental health problems may also lie in treating the family as a whole and improving the overall functionality of the family rather than providing more client-focused interventions (e.g., individual or group therapy) (Sunseri, 2004, 2020). Nevertheless, understanding the association between non-specific and specific treatment factors and psychopathology is critical to better developing targeted clinical approaches and this systematic review provides clear evidence of these factors in the context of TRC.

Conclusion

This review suggests that by adopting this conceptual framework (i.e., non-specific and specific treatment factors associated with lower or greater internalising and externalising symptoms) critical factors associated with better outcomes and quality of care in TRC can be identified. The results for each non-specific and specific treatment factors were largely consistent across time with the exception for sex upon admission. However, only four non–specific treatment factors and one specific treatment factor appeared in multiple studies while all other factors and sub-factors were not replicated. More research is required to replicate and explore possible specific and non-specific treatment factors associated with internalising and externalising symptoms. These results contribute to a growing body of support that TRC should include general components for the majority and specified approaches targeted to sub-groups. TRC can adapt this conceptual framework to inform service provision and monitor and enhance the quality of care provided in TRC.

Qualitative Systematic Review

The current study was published in

Castro, E., Magalhães, E., & Del Valle, J. F. (2024). A systematic review of quality indicators in therapeutic residential care drawn from young people's beliefs and experiences. *Child Indicators Research*, *17*, 1195–1216. https://doi.org/10.1007/s12187-024-10118-5

Abstract

Young people's perspectives on service quality in Therapeutic Residential Care (TRC) are commonly excluded or overshadowed by those of adults which has led to calls for better youth self-report indicators of quality healthcare. In response, we performed a systematic review of peer-reviewed literature to identify the most important quality indicators for young people by reviewing the literature on their beliefs and experiences regarding TRC and building on the four-pronged parsimonious framework (Setting, Staffing, Treatment Approach, and Safety) proposed by Farmer et al. (2017). Following PRISMA guidelines, a systematic literature search was conducted in March 2022. Of the 17, 815 records screened, 15 articles, composed of 15 samples were included. A total of five domains and 13 quality indicators were identified: 1) Setting; 2) Staffing (professional skills and access to specialist support [doctor/therapist]); 3) Treatment Approach (effective transition and aftercare support, rest and time to think, life skills, behavioural improvement, access to education and farm animals as therapeutic aides); 4) Safety (staff actions and structure and stability), and 5) Milieu Factor (trusting relationships, family involvement, and relationship continuity). These four domains provide a practical framework for better-oriented treatment. The additional domain identified as the Milieu Factor places the critical quality indicators of TRC (e.g., trusting relationships) from the perception of the youth themselves, at the centre of attention, and encourages services to assess the extent to which they have the Milieu Factor, so they can strategically adapt and be responsive to the needs of young people. Policy and service delivery implications are discussed.

Keywords: therapeutic residential care, young people´s beliefs and experiences, quality, youth-friendly care, systematic review

Introduction

Therapeutic Residential Youth Care (TRC) concerns the treatment and care of young people outside their family environment and aims to provide services to protect, care for, and prepare young people to return to life in the community (Harder & Knorth, 2015). Young people placed in TRC often display serious behavioural problems (e.g., 80% of young people were found to fall within the clinical range for externalising disorders (Trout et al., 2008) and in many cases come from families with multiple complex problems, including unstable and difficult relationships, abuse, and conflict (Águila-Otero et al., 2020; Boel-Studt, 2017; Nijhof, 2011).

Residential care has many names, including variations in settings, treatment models, staffing patterns, size of living units, and length of stay (Castro et al., 2023; Daly et al., 2018). These variations and the overlapping of life and the treatment context in residential institutions are a continuous challenge in terms of understanding its elements, quality, and efficiency (Gazilj et al., 2021). For the first time, an international consensus statement provided a definition of TRC and its key elements: "TRC involves the planful use of a purposefully constructed, multi-dimensional living environment designed to enhance or provide treatment, education, socialisation, support, and protection to children and youth with identified mental health or behavioural needs in partnership with their families and in collaboration with a full spectrum of community-based formal and informal helping resources." (Whittaker et al., 2015, p. 24). By defining TRC, research reviews documenting the effectiveness of TRC practices and models can now provide a clear base for determining current programme quality and establishing future research, programme development, and policy directions (Daly et al., 2018).

Recent reviews of TRC models suggest that young people have more favourable outcomes than others in general residential care in terms of mental health, general well-being, school attendance, family contact, and community participation (McPherson et al., 2019;

Pecora & English, 2016; Whittaker et al., 2015). Another review of 27 pre-and quasi-experimental studies of youth outcomes following TRC showed that programmes emphasising behavioural-therapeutic modalities and family involvement showed the most promising results; however, there was very little evidence supporting the maintenance of long-term treatment gains (Knorth et al., 2008). These reviews found that what constitutes TRC and its implementation remains a lacuna (Knorth et al., 2008; Whittaker et al., 2015). There is limited evidence for how TRC achieves treatment goals: TRC remains too much of a "black box" (Harder & Knorth, 2015).

However, while outcome studies are one piece of the quality puzzle, efforts to identify quality indicators and develop performance standards are needed (Lee & McMillen, 2008). This is because some people get better despite poor care and some get worse despite the best care; outcomes are not always the most valid indicators of service quality (McMillen et al., 2005). Further, a residential programme's poor performance on an outcome measure provides little guidance about what went wrong so that it can be addressed (McMillen et al., 2005). Some quality of care researchers prefer to assess quality through service processes rather than, or along with, outcomes (for example, Brook et al., 1996).

Nonetheless, no single model has been systematically established or widely applied to understand how quality can be achieved in social service settings (Lee & McMillen, 2008). An overview of the various findings and frameworks (Anglin & Henderson, 2024; Donabedian, 2003; Farmer et al., 2017; James, 2011, 2017; James et al., 2013; Lee & McMillen, 2008; Megivern et al., 2007) suggests that a myriad of potential factors should be considered when assessing quality in residential settings and that four key domains may provide a core view of quality: Safety, Treatment, Staffing, and Setting (Farmer et al., 2017). This four-pronged conceptualisation covers a parsimonious set of domains and constructs that are relatively self-

evident in their importance, measurable in fairly nonburdensome ways, and covers both safeguards against abuse and facilitators of positive change (Farmer et al., 2017).

Regarding the four critical domains, Safety is particularly prominent in the literature with quality indicators, including rules and structures that promote safety, discipline that is fair and not excessive, and safeguards that reduce the fear of abuse by staff or other youth (Anglin, 2004; Megivern et al., 2007). Critically, existing sources agree that quality must include youths' assessments of the setting's safety (Farmer et al., 2017). Examples of key quality indicators for the treatment approach domain include an identifiable treatment model/programme (James, 2011), family-focused interventions (e.g., Geurts et al., 2012; Sunseri, 2020), and a focus on growth and development (Ennals et al., 2021). Staffing is another central domain in the literature, as regardless of the treatment approach/model adopted, it's the providers and their selection, training, and support that are the key quality indicators (Anglin & Henderson, 2024). The Setting domain includes attributes of the physical environment that promote and indicate quality practices (Harder & Knorth, 2015) such as facility size and the extent to which it provides a welcoming home-like environment (Anglin, 2004).

Recently, researchers have called for increased focus on the perspective of individuals who receive child and youth services (Gharabaghi & Anderson-Nathe, 2015; Magalhães et al., 2022) as their views have often been overshadowed and excluded by those of adults (Gilligan, 2015). While it is true that paragraph 1 of Article 12 of the United Nations Convention on the Rights of the Child (UNCRC) gives children the right to express their views freely in all matters affecting them and for their views to be given due weight in accordance with their age and maturity; the process of translating this article results in a gap between the stated article and its realisation within policy and practice contexts (Robinson, 2021). Individual interpretations and biases can dictate which aspects of the article are translated, and this is particularly significant

when it comes to enacting the article in practice (Robinson et al., 2020). For example, when children are viewed as being dependent upon adults, they are more likely to be perceived as incapable of forming their own opinions (Tisdall, 2018) and insufficiently competent or mature to be holders of their own rights (Robinson, 2021). Further, professionals may perceive young people's behavioural and emotional problems as hampering their ability to implement participation (McPherson et al., 2021). In such circumstances, children are viewed as not having 'the independence of mind and ability to act on their own choices' (Archard 2020) and their views are unlikely to be accorded '*due weight*', with the outcome that their voices become marginalised or silenced (Robinson, 2021). However, children in residential care as service consumers are capable of expressing their needs and assessing the care they receive (Pérez-García et al., 2019).

Nevertheless, few adolescent-oriented measures of healthcare quality, satisfaction, or experience of TRC are based on young people's perspectives (Ensign, 2004; Tylee et al., 2007). Therefore, the conceptual framework proposed by Farmer et al. (2017), which has not been explored from the perspective of young people, could capture their core perceptions of quality in TRC and help identify any additional critical domains that emerge. In turn, this could crystalise the crucial elements of TRC and provide a bird's-eye view of service quality through their eyes, promoting an opportunity for an attentive audience and, ultimately, an influence on the service provided to them. Providing youth with an active role may have an empowering effect when they become aware that their voice can create change (Cunningham & Rious, 2015; Kim, 2016). In addition, including youth's perspective in research may provide an understanding or priorities that differ from their caregivers, practitioners, and policymakers (Holland, 2009). In fact, it may be especially important to ask children about their experiences of TRC because they do not always have relationships with stable adults who can provide a reliable account of their lives (Dunn et al., 2010).

This systematic review aims to build on the extent to which the identified domains (setting, staffing, treatment approach, and safety domains) may be necessary and/or sufficient to adequately examine programmes' quality (Farmer et al., 2017) from the perspective of young people. In the current landscape of social services, resources are scarce and must be efficiently allocated to the most effective treatments, demonstrating the quality of care provided within a residential programme takes on increased importance (Lee & McMillen, 2008). Identifying these quality indicators would allow focused attention to those elements that, from the perception of the youth themselves, are considered relevant when moving from a narrative of incipient healing to one of healing (Beiza et al., 2015). Consequently, the main questions addressed in this review were: 1) What quality indicators within the four critical domains (Setting, Staffing, Treatment Approach, and Safety) emerge from the beliefs and experiences of youth in TRC? 2) Do other critical domains emerge from the beliefs and experiences of young people in TRC?

Method

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria are presented in Table 3. The definition of TRC (Whittaker et al., 2015, p. 24) was adapted and included "A purposefully constructed multi-dimensional living environment designed to enhance or provide treatment, education, socialisation, support, and protection to children and youth with identified mental health or behavioural needs." Most studies do not include the extent to which the TRC programme works in partnership with families and in collaboration with a full spectrum of community-based formal and informal helping resources (Leipoldt et al., 2019). In addition, referral sources may vary i.e., CPS, criminal justice, and mental health system.

Table 3

Inclusion and Exclusion Criteria

Category	Inclusion Criteria	Exclusion Criteria
Intervention setting	Residential therapeutic programme[a]	Foster care, outpatient setting, combined care, medical setting, hospital setting, school setting or prisons.
Research respondents	Young people below the age of 25 currently in a Residential therapeutic programme[a] or Residential therapeutic programme[a] leavers.	Young people above the age of 25 or with disabilities.
Key variables	Qualitative non-structured interpretation of beliefs and experiences about quality indicators in a Residential therapeutic programme[a]	Quantitative scores of beliefs and experiences
Research methods	Empirical studies using any qualitative methods.	Quantitative, case studies and review studies.
Cultural and linguistic range	Studies written in or translated into English, Portuguese and Spanish.	Other languages other than English, Spanish and Portuguese.
Time frame and Publication type	No time frame restriction applied. Scientific peer-reviewed articles.	Conference abstracts, books, chapters, dissertations and reports.

[a] Definition of the residential therapeutic programme: a purposefully constructed multi-dimensional living environment designed to enhance or provide treatment, education, socialisation, support, and protection to children and youth with identified mental health or behavioural needs. Referral sources may vary i.e., child protection system, criminal justice and mental health system.

The definition of TRC (Whittaker et al., 2015, p. 24) was adapted and included "A purposefully constructed multi-dimensional living environment designed to enhance or provide treatment, education, socialisation, support, and protection to children and youth with identified mental health or behavioural needs." Most studies do not include the extent to which the TRC programme works in partnership with families and in collaboration with a full

spectrum of community-based formal and informal helping resources (Leipoldt et al., 2019). In addition, referral sources may vary i.e., CPS, criminal justice, and mental health system.

Evidence Acquisition

This review adhered to the protocol for the preferred reporting items for systematic reviews and meta-analyses (PRISMA-P; Shamseer et al., 2015) and followed the five steps to conducting a systematic review: framing questions for a review, identifying relevant work, assessing the quality of studies, summarising the evidence, and interpreting the findings (Khan et al., 2003). A systematic literature search was conducted in March 2022 in the following eight databases, with no limits imposed on the year of publication: Academic Search Complete, APA PsycArticles, APA PsycInfo, Psychology and Behavioural Sciences Collection, ERIC, MEDLINE, Scopus, and Web of Science. The keywords used in the search were based on the Person, Intervention, and Outcome (PICO) model and are illustrated: a) child* OR adolescen* OR juvenile* OR youth* OR teen* OR young* AND b) "residential care" OR "therapeutic residential care" OR "institutional care" OR "group care" OR "group home" OR "residential treatment" AND c) experience* OR belief* OR perception* OR perspective* OR meaning OR quality OR qualitative. The search terms between the PICO statements were entered with an AND statement and the search was performed on the field "AllText", except for Scopus, which was performed on the field "Title and abstract".

Procedure

The search was conducted in each database (Scopus and Web of Science) and EBSCO (Academic Search Complete, APA PsycArticles, APA PsycInfo, Psychology and Behavioural Sciences Collection, ERIC, and MEDLINE). The results were uploaded to EndNote, where

duplicate records were identified and removed. The resulting records were subsequently uploaded to the Rayyan QCRI for screening.

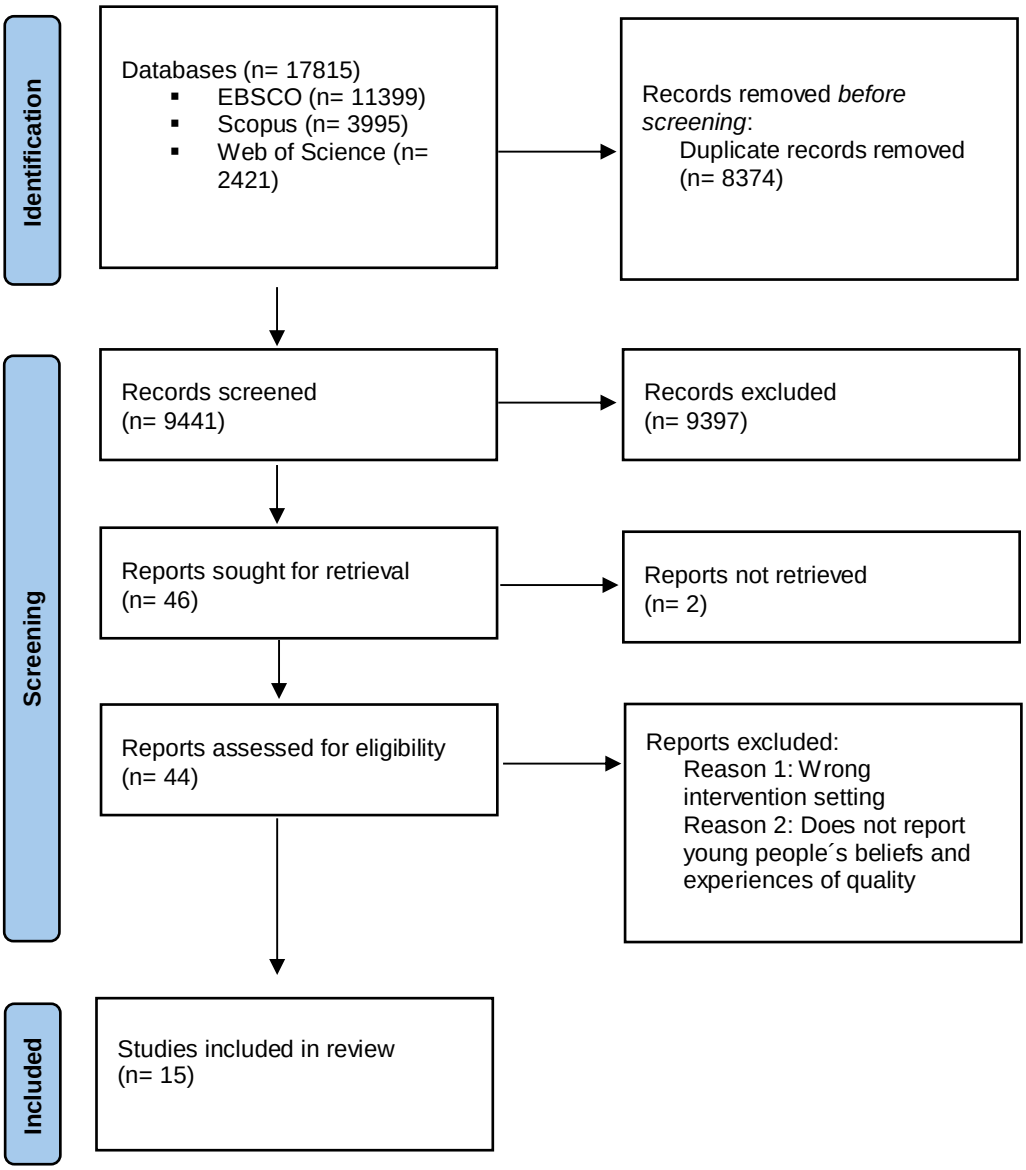
The author (EC) screened all records yielded by the search against the inclusion criteria based on the title and abstract only. An independent researcher (MP) screened 30% of the records and achieved an inter-judge agreement of 99.6 %. Cases of inclusion uncertainty (n = 10) were discussed with EC, MP, and the second author (EM) until a consensus was reached. The eligibility of the remaining studies was determined by EC reading the full text (n = 44), and the reference lists of the included studies were screened by EC, resulting in no further studies being identified.

Data Synthesis and Presentation

The inclusion flowchart presents the number of identified records at each screening stage (see Figure 3) (Page et al., 2021). A total of 17,815 studies were identified, with a final selection of 15 studies.

Figure 3

Inclusion Flowchart



First, studies were characterised by the treatment model (e.g., Teaching-Family Model [TFM]) or "therapeutic intervention". "Therapeutic intervention" refers to a specific therapeutic component in TRC or practice (e.g., Cognitive Behavioural Therapy [CBT]) which may be delivered as part of the treatment model or as an add-on to maximise improvement. A "therapeutic intervention" may stem from a variety of therapeutic approaches and aims to have a therapeutic effect (i.e., reduce internalising and externalising symptoms) (Castro et al., 2023). General study characteristics were also extracted, such as country, study design, participant statistics, and study domains (see Table 4: Characteristics of Studies – Methodology and Study Domains).

Table 4

Characteristics of Studies – Methodology and Study Domains

Authors	Country	Treatment Model or Therapeutic Intervention	Sample (size, type and mean age in years [range])	Analytical Approach	Data Collection	Domains
1. Beiza et al. 2015	Chile	Multidisciplinary team with specialised training in child sexual abuse and access to therapy sessions	*N*= 5; CPS [13-17] Youth: 20% Male	Thematic analysis	In-depth interviews	Milieu Factor Staffing
2. Bramsen et al. 2019	Netherlands	YouthCarePlus intensive (cognitive) behavioural treatment and family interventions	*N*= 405; CPS [15 -20] Youth: 68.8% Male	Grounded theory	Open in-depth interviews using auto bio-graphical life sto method	Milieu Factor Treatment Approach
3. Ennals et al. 2021	Australia	Individual, strengths-focused support and coaching	*N*= 18; Voluntary 21 Youth: 44.4% Male	Grounded theory	Semi-structured interview and focus groups	Milieu Factor Staffing Treatment Approach
4. Field et al. 2021	UK	Range of therapies and one- to- one key working sessions	*N*= 5; Voluntary [16-17] Youth: 100% Female	Thematic analysis	Semi-structured interview	Staffing Treatment Approach
5. Gallagher & Green, 2012	UK	Integrated Care Model	*N*= 16; CPS [16-17] Youth: 37% Male	Template analysis	Semi-structured interview and focus groups	Milieu Factor Setting

Authors	Country	Treatment Model or Therapeutic Intervention	Sample (size, type and mean age in years [range])	Analytical Approach	Data Collection	Domains
6. Harder et al. 2017	USA	Not specified	*N*= 8; Mixed 17 [15-20] Youth: 75% Male	Exploratory	Semi-structured interview	Staffing
7. January et al. 2018	USA	Teaching-family model	*N*= 7; Mixed 16.26 [14.99 - 17.57] Youth: 42.9% Male	Exploratory	Semi-structured interview	Milieu Factor Treatment Approach
8. Kor et al. 2021	Australia	Not specified	*N*= 8; CPS [12-17] Youth: 87.5% Male	Interpretative phenomenological analysis	Semi-structured interview	Milieu Factor Staffing Treatment Approach Safety
9. Mallon, 2001	USA	Farm animals as therapeutic aides	*N*= 80; Mixed 11 [7-16] Youth: 91.3% Male	Thematic analysis	Open-ended interview	Treatment Approach
10.Nickerson et al. 2006	USA	Not specified	*N*= 21; Mixed 14.60 [12–17] Youth: 81% Male	Thematic analysis	Structured and open-ended interview	Milieu Factor Treatment Approach
11. Pazaratz, 1999	USA	Milieu Therapy	*N*= 100; CPS [10-18] Youth: 100% Male	Naturalistic, descriptive and phenomenological approach	Questionnaire and open-ended interview and Focus group	Milieu Factor

Authors	Country	Treatment Model or Therapeutic Intervention	Sample (size, type and mean age in years [range])	Analytical Approach	Data Collection	Domains
12. Pérez-García et al. 2019	Spain	Not specified	*N*= 127; Not specified [11-18] Youth: 67.7% Male	Thematic analysis	Semi-structured interview	Milieu Factor Setting
13. Schaefer, 1972	USA	Teaching-family model	*N*= 66; Not specified [8-14] Youth: 100% Male	Descriptive statistics	Open-ended interview	Milieu Factor Setting Treatment Approach
14. Somers et al., 2021	USA	Not specified	*N*= 58; CPS [13-19] Youth: 100% Female	Thematic analysis	Focus group	Staffing
15. Sulimani-Aidan & Paldi, 2020	Israel	Not specified	*N*= 79; Mixed [21-25] Youth: 100% Male	Descriptive statistics	Structured questionnaire	Milieu Factor

The methodology of the included studies was characterised using a modified quality checklist (Greenhalgh & Taylor, 1997) (Table 5: Quality Appraisal).

Table 5

Quality Appraisal

	Yes	**No**	**Unclear**
Was a qualitative approach appropriate?	1,2, 3, 4, 5, 6, 7, 8, 9,10,11, 12, 13, 14, 15		
Was the sampling strategy appropriate for the approach?	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15		
What were the data collection methods?	3, 6, 7, 13	1, 2, 4, 5, 8, 9, 10, 11, 12, 14, 15	
How were data analysed and how were these checked?	1, 2, 4, 8, 13	7	3, 5, 6, 9, 11, 12, 15
Is the researcher's position described?	2, 3, 4, 5, 11, 14	1, 5, 6, 7, 8, 9, 10, 12, 13, 15	
Do the results make sense?	1, 2, 3, 4, 5, 6, 7, 8, 9,10, 11, 12, 13, 14, 15		
Are the conclusions drawn justified by the results?	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15		
Are the findings transferable to other clinical settings?	1, 2, 3, 4, 5, 6, 7,8, 9, 10, 11, 12, 13, 14, 15		

Note:1-Beiza et al. 2015; 2-Bramsen et al. 2019; 3- Ennals et al. 2020; 4- Field et al. 2021; 5- Gallagher & Green, 2012; 6- Harder et al. 2017; 7- January et al. 2018; 8- Kor et al. 2021; 9- Mallon, 2001; 10- Nickerson et al. 2006; 11- Pazaratz, 1999; 12- Pérez-García et al. 2019; 13- Schaefer, 1972; 14- Somers et al., 2021; 15- Sulimani-Aidan & Paldi, 2020

Adopting the conceptual framework proposed by Farmer et al. (2017), content analysis was used to extract quality indicators from young people´s beliefs and experiences regarding TRC. This conceptual framework provides a straightforward and relatively easy approach to identifying quality indicators (Farmer et al., 2017). The spreadsheet was divided into four

sections (Setting, Staffing, Treatment Approach, and Safety), and quality indicators were extracted from young people´s beliefs and experiences. The analysis and results were discussed with another investigator on the research team to validate the results further. The results were described by presenting the number of studies that reported each quality indicator.

Results

Study Characteristics

The characteristics of the included studies are listed in Table 4. Most studies were performed in the USA *(n* = 7; 46.7%), four studies were performed in Europe, two studies were performed in Australia and one study was performed in South America and Israel. Sample sizes ranged from 5–405 participants. This review involved 1003 youth (age range 5-25). Most studies specified the therapeutic intervention (*n* = 5; 33.3 %), followed by those that specified the treatment model (*n* = 4; 26.7%), and those that did not specify the treatment model or therapeutic intervention (*n* = 6; 40 %). The treatment models included the TFM (*n* = 2; 13.3 %), Youth Care Plus (*n* = 1; 6.7%), and Integrated Care Model (*n* = 1; 6.7%). The therapeutic interventions included farm animals as therapeutic aides (*n* = 1; 6.7%), milieu therapy (*n* = 1; 6.7%), multidisciplinary team with specialised training in child sexual abuse and therapy sessions (*n* = 1; 6.7%), individual, strengths-focused support and coaching (*n* = 1; 6.7%), and access to a range of therapies and one-to-one key working sessions (*n* = 1; 6.7 %). The studies employed an array of analytical approaches, including thematic analysis (*n* = 7; 46.7%), grounded theory (*n* = 2; 13.3%), exploratory (*n* = 2; 13.3%), descriptive statistics (*n* = 2;

13.3%), naturalistic (*n*= 2; 13.3%), descriptive and phenomenological approaches (*n*= 1; 6.7%), and template analysis (*n*= 1; 6.7%). Data were collected through semi-structured interviews (*n*= 8; 53.3%), followed by closed and open-ended interviews (n= 3; 20%), focus groups (*n*= 2; 13.3%), open in-depth interviews using an autobiographical life story method (*n*= 1; 6.7%), in-depth interviews (*n*= 1; 6.7%), structured interviews (*n*= 1; 6.7%), and a questionnaire (*n*= 1; 6.7%). Most studies specified the referral source as either the CPS (*n*= 6; 40%) or mixed (*n*= 5; 33.3%), followed by those who were referred voluntarily (*n*= 2; 13.3%), or where the referral source was not specified (*n*= 2; 13.3%). Most studies focused on quality indicators related to the milieu factor domain (*n*= 11; 73.3%) and treatment approach (*n*= 8; 61.5%), followed by the staffing domain (*n*= 5; 33.3%), setting domain (*n*= 3; 20%), and safety domain (*n*= 1; 6.7%).

Quality Indicators

A total of 13 quality indicators associated with five critical domains were reported in 15 studies (see Table 6). In addition to the four critical domains identified by Farmer et al. (2017), another domain emerged as critical and was identified as the Milieu Factor in which young people perceived trusting relationships as a crucial component of TRC.

Table 6

Summary of Quality Indicators within each Domain

Domains	Quality Indicators	Authors
Setting		Gallagher & Green, 2012; Pérez-García et al., 2019; Schaefer, 1972
Staffing	Professional skills	Ennals et al., 2021; Harder et al., 2017; Kor et al., 2021; Pérez-García et al., 2019; Somers et al., 2021
	Access to specialist support	Beiza et al., 2015; Field et al., 2021
Treatment Approach	Effective transition and aftercare support	Field et al., 2021; January et al., 2018; Kor et al., 2021
	Rest and time to think	Bramsen et al., 2019
	Life skills	Ennals et al., 2021; Nickerson et al., 2006
	Behavioural improvement	Nickerson et al., 2006
	Access to education	Gallagher & Green, 2012
	Farm animals as therapeutic aides	Mallon, 2001
Safety	Staff actions	Kor et al., 2021
	Structure and stability	Kor et al., 2021
Milieu Factor	Trusting relationships	Bramsen et al., 2019; Ennals et al., 2021; Gallagher & Green, 2012; January et al., 2018; Pazaratz, 1999; Pérez-García et al., 2019; Nickerson et al., 2006
	Family involvement	Bramsen et al., 2019; January et al., 2018; Kor et al., 2021; Schaefer, 1972; Sulimani-Aidan & Paldi, 2020
	Relationship continuity	Beiza et al., 2015; Gallagher & Green, 2012; Kor et al., 2021

Setting

Available Resources (n= 4). The available resources identified as important to young people were physical resources such as meals, the bedroom, sports equipment, computers (Pérez-García et al., 2019; Schaefer, 1972), skills-building (e.g., carpentry and mechanics), and

leisure activities (e.g., trips) (Gallagher & Green, 2012; Pérez-García et al., 2019; Schaefer, 1972).

Staffing

Professional Skills (n= 5). Young people listed several crucial professional skills for care workers and educators. This included the ability of care workers and educators to provide a fine balance between rules and freedom (Harder et al., 2017; Pérez-García et al., 2019). In addition, the staff took time to get to know them which indicated that they cared and was highlighted as an essential skill when establishing rapport (Ennals et al., 2021; Kor et al., 2021). Showing empathy, being available for support, being careful with the upkeep of the household, being reliable, honest, resistant to stress (Harder et al., 2017), and listening well (truly understanding what the young person means) (Ennals et al., 2021; Harder et al., 2017) were also identified as key professional skills for care workers. These slightly differed for educators which included being supportive, having expertise (knowing what he/she is doing), inspiring, and having a good sense of humour and patience (Harder et al., 2017). Young people also pointed out that being left in the dark without a discussion about the reason for the changes in placement engendered a sense of powerlessness and diminished self-worth (Kor et al., 2021). Young people also pointed out specific needs that should be met by educators which could inform practice, such as the need for least-intrusive behavioural management, preventative strategies for behaviour, differentiated instruction, and recognition (Somers et al., 2021).

Access to Specialist Support [Doctor and Therapist] (n= 2). Young people highlighted that they found having access to a doctor for medical support helpful (Field et al., 2021), and that a therapist was someone of great relevance in the healing process and promoted positive changes in their lives (Beiza et al., 2015).

Treatment Approach

Effective Transition and After-care Support (n= 3). Young people felt that transitions from placement should be delivered over time instead of one single event (Field et al., 2021; Kor et al., 2021) and that the aftercare provided was either not helpful or discontinued prematurely (January et al., 2018).

Life Skills (n= 2). Young people expressed wanting to learn life skills to successfully live independently, such as public transport, driving, cleaning, washing, budgeting, shopping, and cooking (Ennals et al., 2021; Nickerson et al., 2006). Supported opportunities to practice skills individually and in groups were valued as they established independence (Ennals et al., 2021).

Rest and Time to Think (n= 1). Young people highlighted the need for time and space to regain control over their lives and discover what fits in with who they are or want to be as a person (Bramsem et al., 2019).

Behavioural Improvement (n= 1). When asked what they hoped to gain from treatment, adolescent responses included improving behaviour (e.g., developing a better attitude and learning coping skills) (Nickerson et al., 2006).

Access to Education (n= 1). When young adults were asked why they were positive about school, they drew attention to the specific benefits they had gained. These composed of improvements in their general learning, securing qualifications, developing emotionally, acquiring a sense of being 'normal', and making friends (Gallagher & Green, 2012).

Farm Animals as Therapeutic Aides (n= 1). Young people reported that petting animals helped regulate their emotions when they were feeling sad (Mallon, 2001).

Safety

Staff Actions (n= 1). Young people stated that they felt safe when care workers were physically present and actively engaged (i.e., not in the office for prolonged periods) (Kor et al., 2021).

Structure and Stability (n= 1). Young people reported that their experience of safety was cultivated by structure and stability in the living environment. Without these, young people revealed that it could trigger traumatic memories of abuse and neglect (Kor et al., 2021).

Milieu Factor

Trusting Relationships (n= 5). Young people consistently stressed that trusting relationships with peers, staff and family were vital to their recovery (Bramsen et al., 2019; Ennals et al., 2021; Gallagher & Green, 2012; January et al., 2018; Pazaratz, 1999; Pérez-García et al., 2019). Youth identified unhealthy relationships as a key barrier contributing to their return to TRC (January et al., 2018). When asked what they hoped to gain from treatment, adolescent responses included improving their relationships with family and peers (Nickerson et al., 2006).

Family Involvement (n= 5). Young people reported missing and worrying about their families (Bramsen et al., 2019; Kor et al., 2021; Schaefer, 1972), and most young adults thought that parents should be involved in various degrees of contact (Sulimani-Aidan & Paldi, 2020). The absence of fathers in family contact was also keenly felt by young people (Kor et al., 2021). Lack of family contact or knowledge of why contact with other family members could not happen seemed to exacerbate ambiguous loss for some young people (Kor et al., 2021). All youth noted that building and maintaining trusting relationships with family members and their peers in the community was challenging but vital, and if not achieved at discharge from TRC, could result in their return (January et al., 2018).

Relationship Continuity (n= 3). Young people expressed that they felt more secure in establishing relationships with staff when staff turnover was low (Beiza et al., 2015; Kor et al., 2021). Most young people found it helpful to stay in touch with the staff post-discharge (Gallagher & Green, 2012).

Discussion

This study identified the aspects of TRC that were most important to young people by reviewing the literature on young people's beliefs and experiences of TRC within four critical domains (Setting, Staffing, Treatment Approach, and Safety) and identifying quality indicators and additional critical domains. A total of five domains and 13 quality indicators were identified: 1) **Setting**; 2) **Staffing** (professional skills and access to specialist support [doctor/therapist]); 3) **Treatment Approach** (effective transition and aftercare support, rest and time to think, life skills, access to education, farm animals as therapeutic aides); 4) **Safety** (staff actions, structure and stability) and 5) **Milieu Factor** (trusting relationships, family involvement and relationship continuity).

The four domains proposed by Farmer et al. (2017) were robust and provided a practical framework for identifying quality indicators that can assess how well services engage young people. An additional domain emerged as critical and was identified as the Milieu Factor in which young people perceived trusting relationships as a crucial component of TRC. This is consistent with studies of milieu-based services (Pecora & English, 2016) in which trusting relationships support healing and growth–the change work and recovery of mental ill-health and emotional distress (Bjørlykhaug et al., 2020; Ennals et al., 2021). The additional domain encourages services to assess the extent to which they have the Milieu Factor and strategically work towards this. As according to the young people, services that have the Milieu Factor are more likely to respond to their needs.

Relationships, including those between family and peers, were even more critical for young people in TRC, as indicated by their beliefs and experiences. It could be said that relationships, or more specifically, a breakdown in relationships, are the crux of the reason why many children are in TRC (Gallagher & Green, 2012). It's not surprising that real relationships emerged as what matters most to young people (Bramsen et al., 2019; Ennals et al., 2021). For it is real relationships where young people connect via interest not illness which creates a sense of belonging, normalcy and feeling known as a person beyond a diagnosis (Ness et al., 2017).

Furthermore, although trusting relationships were reported by young people in different settings (i.e., CPS, mixed, voluntary) as a critical quality indicator, specific quality indicators in the Milieu Factor domain may be particularly important to certain groups of young people in TRC, such as family involvement and relationship continuity for young people in the CPS. Although challenging, the key to helping children with serious mental health problems in the CPS may also lie in treating the family as a whole and improving its overall functionality rather than providing more client-focused interventions (e.g., individual or group therapy) (Sunseri, 2004, 2020). The shift to increase family involvement may not only address the youth's struggles but also contextual factors that may be underlying the emotional manifestations of their struggles, such as pressures to conform to traditional gender roles (Farley et al., 2021).

In addition, relationship continuity was not only defined by the continuity of placement but also by the continuity of relationships with residential care practitioners during placement and post-discharge. The complexities surrounding the factors which influence relationship continuity, such as frequent staff turnover (Munro, 2001), make it a subject requiring research which moves beyond simply counting the number of placements children experience (Usher et al., 1999).

Regarding the Setting domain, young people highlighted available resources, such as leisure (e.g., trips) as an important feature of TRC. This is consistent with the literature that

suggested that leisure activities can play an important role in facilitating the development of trusting relationships (Gilligan, 2007) which this review identified as paramount for the success of long-term treatment outcomes.

Young people highlighted quality indicators in the Staffing domain such as professional skills and access to specialist support. Young people provided a clear overview of the skills that professionals in TRC should possess which could be practically used for skills training. It is important to note that these professional skills are essential for staff to navigate a range of tensions and conflicting responsibilities (Gallagher & Green, 2012). For example, they need to develop trusting relationships with children, at the same time as having to uphold the duty to share sensitive information about those children with colleagues and facilitate children's friendships and leisure activities, but also ensure that these do not lead to harm to the child or anyone else (Gallagher & Green, 2012). This emphasises how important it is for staff to be adequately supported and satisfied in their role so that staff retention is high and young people feel safe in forming trusting relationships. Young people also point out that having access to specialist support such as a doctor and therapist is paramount in their recovery (Beiza et al., 2015; Field al., 2021), and building trusting relationships with their therapist is a turning point in both the psychotherapeutic and healing processes (Field al., 2021).

Regarding the Treatment domain, young people indicated the need for the transition from TRC to be a gradual process. It is both unethical and counterproductive to provide a young person with high-needs intensive support, only to end their placement or other support services abruptly at 18, regardless of their ongoing needs and expressed wishes (Field al., 2021), which is the case for some in TRC. Furthermore, tailored aftercare services post-discharge may be required to meet the unique needs of each youth and their caregiver(s).

Young people shed light on the treatment approaches they found helpful and did not highlight a specific therapy, such as CBT or treatment approach. The findings highlighted that

young people may respond well to therapeutic modalities that focus on their personal and developmental needs while in TRC (i.e., rest and time to think, access to education, animals as therapeutic aids) and what they want to achieve (i.e., behavioural improvement, autonomy and trusting relationships [Milieu Factor]). Rest and time to think was identified by mostly male participants in the CPS, where the prevalence of youth experiencing multiple traumatic events, such as abuse, neglect, and violence, can be as high as 92% (Briggs et al., 2012). Considering the prevalence of complex trauma, having time to explore may be ideal during this time of life but may not be a reality for these youth (Munson et al., 2013).

In samples of young people aged 18-21, the development of agency, sense of control, and independent living skills were priorities (Hooper et al., 2000; James, 2011; Rivard et al., 2005) and suggested that for older youth, working towards achieving autonomy may be highly motivating. Behavioural improvement was noted in a study with a mixed sample of mostly male participants; young people in TRC present with a high prevalence and severity of externalising disorders (Trout et al., 2008), and females tend to respond better to treatment (Farley et al., 2021). Providing an opportunity for young people to actively select the appropriate treatment options may be particularly important for young people in CPS, as they are often involuntary clients and/or who are not engaged in services (Boel-Studt et al., 2019). Furthermore, it is essential to focus on the patterns of co-occurring risk and protective factors in different subgroups to promote the success of TRC and tailor interventions accordingly.

Only one study reported quality indicators related to the Safety domain in a sample of young people in the CPS (Kor et al., 2021). In this study, young people spoke about safety in terms of prevention of abuse and harm (e.g., the need for care workers to act proactively to prevent and respond to peer victimisation for them to feel safe) (Kor et al., 2021), as well as the need for predictability, such as a structured and stable environment (Kor et al., 2021). Although safety from abuse and harm is vital, studies have consistently shown that the

residential care experiences of many children and young people are marked by a lack of safety, sustained violence, and ongoing threats of physical, emotional, and sexual abuse (Attar-Schwartz & Khoury-Kassabri, 2015; Finkelhor et al., 2016; McLean, 2015).

Therefore, as many have experienced significant trauma, abuse, and loss before entering and during their time in out-of-home care, children and young people need their residential care to be safe to enable them to overcome the effects of their past abuse and to positively grow and develop (Bath, 2015a, 2015b; Hawkins-Rodgers, 2007; Holden et al., 2010). This is particularly important if the aim of residential care is to be therapeutic and to help young people heal and grow during their time in care (Bath 2015a, 2015b). A targeted approach to increase the Milieu Factor and strengthen trusting relationships with peers, staff, and the family may assist in young people´s sense of safety, as healing starts by creating an atmosphere of safety (Bath, 2015a, 2015b), and an atmosphere of safety begins with trusting relationships.

Limitations and Future Recommendations

To our knowledge, this review is the first synthesis of literature testing the conceptual parsimonious framework proposed by Farmer et al. (2017), with a focus on identifying quality indicators drawn from the beliefs and experiences of young people. A strength of this review is that in applying this framework to young people, TRC can better orient treatment to young people's needs, and findings could be incorporated into teaching and training initiatives to enhance youth-friendly health care (Ambresin et al., 2013). To standardise the quality of qualitative studies, we used a widely accepted assessment tool (Greenhalgh & Taylor, 1997) and found that all qualitative studies were methodologically sound. The consistency of the results from several studies was observed, with eight of the quality indicators supported by several studies.

However, some limitations have been identified, such as not reporting the referral source (Pérez-García et al., 2019; Schaefer, 1972). Therefore, it is unclear what specific population of young people the findings relate to. In addition, despite the inclusion criteria being broad and including multiple referral sources, that is, CPS, juvenile justice, mental health, and young people's reflections on their TRC experience retrospectively, no specific studies were identified relating to juvenile justice or young people's TRC retrospective reflections. Consequently, qualitative studies that capture the lived experiences of all young people in TRC, including those who have left, are needed to fully identify the quality indicators that are important to young people in TRC and what might be particularly important for a specific group of young people.

An avenue for future research is to test the conceptual framework with staff. From the perspective of young people, the continuity of staff in post is vital for the formation of trusting relationships (Beiza et al., 2015; Kor et al., 2021). Understanding the perspective of staff and giving them opportunities to voice their beliefs and experiences to improve the service provided places value on their experience and may promote staff satisfaction which, in turn, may promote staff continuity and trusting relationships with young people. Further, this promotes the culture of having a voice and feeling respected and enriches the quality indicators identified by young people.

Implications for Policy and Practice

What are the implications of these findings on the provision and delivery of TRC? Perhaps the most important new finding is the identification of an additional domain to Farmer et al. (2017) framework, identified as the Milieu Factor and the importance of trusting relationships. This has been identified as a distinct domain owing to the critical nature of trusting relationships highlighted by young people in TRC and the multifaceted approach

required to cultivate and sustain such relationships in a residential milieu. Not only is a treatment approach that considers this, but all four critical domains proposed by Farmer et al. (2017) should be considered when promoting trusting relationships, such as a wider staff training focused on managing the complex peer and family dynamics, leisure activities to promote socialisation, etc. Distinguishing this critical domain allows focused attention to an aspect of TRC that is paramount to young people in the long-term. Services can assess the extent to which they have the Milieu Factor, and strategically adapt to enhance trusting relationships. As according to young people, services that have the Milieu Factor are more likely to respond to their complex needs and make a lasting difference in their lives.

Young people in the CPS strongly expressed the need for relationship continuity as an important quality indicator in the milieu domain. This suggested that quality services must ensure that staff are carefully selected, valued (e.g., growth opportunities), and well-supported (e.g., adequate training and supervision, adequate procedures, and support systems) so that staff satisfaction is high to ensure a high level of staff retention and, thus, relationship continuity. In fact, relationship continuity may be the key to building trusting relationships and, particularly crucial for young people in the CPS. Indeed, young people in contact with their biological parents while in care experience emotional growth and better functioning in adulthood (Weiner & Kupermintz, 2001). It is possible, however, that these two aspects are connected, and that the continuity of relationships with biological parents facilitates the youth's formation of new relationships with others (Bowlby, 1988).

Further, findings suggested that family involvement may be particularly critical for young people in the CPS. Therefore, when possible, services should attempt to overcome any barriers to visitation or involvement (e.g., paying travel expenses, providing family therapy, offering family accommodation on-site, and using online platforms to facilitate

communication). For those where family involvement is not possible, additional support targeted at building trusting relationships should be provided.

Trusting relationships with peers also appeared to contribute to a sense of safety in TRC. The need for safety and protection from peer victimisation indicates that more careful assessment is required when making decisions about placement matching (Kor et al., 2021), and that the Milieu Factor (trusting relationships) should be considered even before placement. The findings also have implications for research and policy and strongly suggested that including young people's perspectives, as well as working together with them as partners, may open up promising new areas for innovations in care (Bramsen et al., 2019). Closing the gap in knowledge about the quality of care that youths receive will require both providers and scholars to work collaboratively to identify quality indicators and performance measurements (Whittaker et al., 2006).

Mixed Methods Empirical Study

The current study was published in

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Abstract

Purpose: In contrast to the international context of residential care and the preference for family based care, residential care in Portugal is the only option for most young people in the child protection system. Despite this, research in Portugal has yet to focus on Therapeutic Residential Care (TRC), and has rarely considered the narratives of young people. By adopting the conceptual framework proposed by Farmer et al. (2017) and focusing on five critical domains (Setting, Staffing, Treatment Approach, Safety, and Milieu Factor), we aimed to identify a subset of factors that contribute to youth improvement. Method: This convergent parallel mixed methods study involved conducting semi-structured interviews with 14 young people, mostly females (71%), aged 14-18 years (*M*=16.3, *SD*= 1.8) at five TRC facilities in Portugal. Young people and staff also completed a sociodemographic questionnaire and the youth self-report or child behaviour checklist to assess internalising and externalising symptoms. Results: Content analysis revealed mostly positive perceptions and experiences across the domains (Setting, Staffing, Treatment Approach, Safety, Milieu Factor , and Profile Characteristics). However, half of the youth reported being vulnerable to peer contagion, and females with higher internalising and externalising symptoms reported more negative perceptions and experiences of TRC. These findings highlight that creating a social context that supports participatory approaches to assessing quality may provide invaluable insights into how services can be responsive to young people's needs. Focusing on establishing high-quality relationships with staff, peers, family, and the community may be key to ensuring the long-term success of TRC.

Keywords: therapeutic residential care, mixed methods, young people's perceptions and experiences, internalising and externalising symptoms, quality

Purpose

This convergent parallel mixed methods study examined young people's perceptions and experiences of Therapeutic Residential Care (TRC) in Portugal (qualitative) and their profile characteristics and psychopathology (quantitative). 14 young people in five of the seven existing TRC facilities provided a core view of the quality of TRC from their perspective. The conceptual framework proposed by Farmer et al. (2017) (Setting, Staffing, Treatment Approach, Safety, and Milieu Factor) was adopted, and additional critical domains that emerged from the voices of the young people themselves were identified. After introducing the context of the study, the key concepts, factors, and approaches for assessing quality were reviewed to explain the rationale and purpose of the study. Lived experience research such as this study privileges young people's perspectives and may even be more critical in the Portuguese Residential Care (RC) context. The findings can be used to promote the meaningful participation of young people and inform policy and practice to ensure that services are youth-friendly and fit for purpose. Furthermore, whilst this research focused on TRC in Portugal, its findings have broader implications for the development of TRC internationally, given the continuing interest and growing efforts in cross-national synthesis of research knowledge (Courtney et al., 2009; Whittaker et al., 2015).

The Context of Residential Care in Portugal

Worldwide, there is limited evidence on how TRC achieves treatment goals: TRC remains too much of a black box (Castro, 2023; Harder & Knorth, 2015; Leipoldt et. al., 2019). The black box metaphor regarding the quality of RC, which is an international phenomenon (Bravo & Del Valle, 2009), proves to be even more the reality in Portugal (Barbosa-Ducharne & Soares, 2023; Rodrigues et al., 2013) and requires immediate attention as the Portuguese

Child Protection System (CPS) has some particularities which make it singular (Negrão et al., 2024).

Contrary to the international context, in practice, RC in Portugal is not used as a "last resort", but is the only option for most young people. In Portugal, there are two types of out-of-home care: foster care and RC. Contrary to most European CPS, foster care is almost non-existent (approximately 3% of children in out-of-home care are in foster care), even for infants and toddlers, despite recent legislative changes (e.g., Law No. 142/2015; Decreto-Lei n.º 139/2019) to promote foster care placements (Delgado et al., 2017). Therefore, RC continues to be the primary form of out-of-home care placement for children and youth (ISS.IP, 2023).

According to Portuguese law, child and youth RC is defined as an out-of-home response prescribed by the CPS, which aims to ensure the safety, well-being, and development of abused and/or neglected children and youth (Law No. 23/2023). Consistent with the literature worldwide (Águila-Otero et al., 2020; Connor et al., 2004), adolescents in Portuguese RC report higher levels of mental health, when compared to their peers in the community, and females present more psychological maladjustment than males (Rodrigues et al., 2014b, 2019). The history of abuse may explain the complicated presentations of females in RC (Castro et al., 2023). According to a recent meta-analysis, a history of abuse, specifically sexual, emotional, and physical abuse, was associated with higher internalising and externalising symptoms (Magalhães & Camilo, 2023). Furthermore, a national report indicated that 24.1% of young people in RC exhibited behavioural problems, 6.8% were diagnosed with a mental disorder, and 1.1% suffered from drug addiction (ISS.IP, 2023). Young people in RC also received treatment for their emotional and behavioural problems; for example, 39% received regular support from a psychologist, and 26.7% took psychiatric medication (ISS.IP, 2023).

Indeed, the past 20 years have seen the emergence of highly specialised RC services with a pronounced therapeutic component, in which 1.9% of young people in out-of-home care

were placed (ISS.IP, 2023). Furthermore, the number of young people requiring specialised RC services has significantly increased by 118% over the last eight years (ISS.IP, 2023), indicating that an approach with a strong therapeutic component is needed to address the needs of the most traumatised young people with more complex needs in the CPS.

This gradual shift was marked by an amendment to Portuguese Law, meaning that settings were defined according to young people's needs (non-specialised vs. specialised) rather than the expected length of stay in care (temporary vs. long-term placement) (Law No. 142/2015). Specialised homes in Portugal were specified as (a) emergency shelters, (b) RC settings to address therapeutic or educational needs (targeting young people with severe mental health problems or disabilities), and (c) autonomous apartments (Law No. 142/2015).

In non-specialised (generalist) residential settings, the aim is to create an environment that resembles as much as possible a family context based on therapeutic milieu assumptions (i.e., a relational space where interactions are intended to meet the needs of the children and youth in care) (Silva et al., 2022). Specialised RC centres aimed at addressing the therapeutic or educational needs of children and youth with severe mental health problems and disabilities guide their interventions using specific therapeutic models (Silva et al., 2022).

Critically, only recently an international consensus statement provided a definition of TRC and its key elements: "TRC involves the planful use of a purposefully constructed, multi-dimensional living environment designed to enhance or provide treatment, education, socialisation, support, and protection to children and youth with identified mental health or behavioural needs in partnership with their families and in collaboration with a full spectrum of community-based formal and informal helping resources." (Whittaker et al., 2015, p. 24). This has provided a clear base for determining current programme quality and establishing future research, programme development, and policy directions (Daly et al., 2018).

Whilst TRC in the USA and UK encompasses a broad spectrum of youth services, including psychiatric residential treatment facilities (Pecora & English, 2016), and includes a variety of potential referral sources (e.g. CPS, mental health system, criminal justice system [Castro, 2023, 2024]); Portuguese TRC is exclusively for young people in the CPS, and includes young people with severe disabilities and those who present with high-risk behaviours such as drug use, suicidal behaviour, inappropriate sexual behaviour, or a history of running away and prolonged absences (ISS.IP, 2023). According to Portuguese law, each TRC unit (i.e., group) can host up to 15 young people, although this number may be exceeded on an exceptional and duly justified basis (Decree-Law No. 164/2019). This number varies worldwide. For example, Australia has opted for a small-scale service that serves up to four children and young people at any one time (Kor et al., 2021).

Quality of Residential Care System of Children in Portugal

Given the context of Portuguese RC, there has been limited investment in determining the quality of RC in Portugal. Scientific publishing regarding the quality of Portuguese RC is scarce, presents immense variability (Negrão et al., 2024), and does not focus on TRC (e.g., Rodrigues et al., 2014b; 2019).

Previous studies (e.g., Rodrigues et al., 2014a, 2014b, 2019) have adopted the Portuguese comprehensive evaluation system for RC (ARQUA-P). ARQUA-P is a translated and adapted version of ARQUA's research methodology (Del Valle, 1997). It is an ecological evaluation system that uses mixed methods (with a focus on quantitative analysis) and multiple sources of information (e.g., young people and caregivers), aiming to assess the needs and psychological adjustment of children in RC and the quality of services provided by institutions, and to understand the relationship between these variables (Rodrigues et al., 2014a).

Young people positively evaluated RC in all ARQUA-P dimensions, including 'overall quality' (Rodrigues et al., 2014b, 2019). However, young people evaluated the dimension 'respect for rights' and 'normalisation and integration' significantly less positively than their caregivers (Rodrigues et al., 2014b). The findings revealed significant correlations between the dimensions of RC quality assessment and measures of young people's psychological adjustment, life satisfaction, personal well-being, and self-esteem (Rodrigues, 2019). Females evaluated the quality of RC units' services significantly lower than boys in almost every dimension, including 'overall quality' (Rodrigues et al., 2014b; 2019).

For too long, the assumptions of conventional wisdom that RC is harmful, that research shows that it is harmful, and that it should only be used as a last resort or eliminated altogether have dominated the conversation (Anglin & Henderson, 2024). What may be especially important in the Portuguese context is to shift the conversation to how high-quality RC can be achieved, especially when other out-of-home placement options are not available, and to ensure that young people have a voice and an influence in policy and practice. Furthermore, research on out-of-home care in Portugal is yet to focus on TRC. Thus, little is known about how TRC operates and how treatment goals are achieved. Judging the quality of the interventions implies recognising and clarifying all variables involved (Farmer et al., 2017). Focusing on young people's perceptions and experiences and adopting a qualitative approach to data analysis may provide more information about how the results are achieved**.**

Conceptual Framework

International research has highlighted that, to gain more durable positive treatment results, we need to know more about how the results are achieved, rather than merely investigating the achieved results (Harder & Knorth, 2015). However, no single model has been systematically established or widely applied to understand how quality can be achieved in social service settings (Lee & McMillen, 2008). An overview of the various findings and

frameworks (Anglin & Henderson, 2024; Castro et al., 2023, 2024; Farmer et al., 2017; James, 2011, 2013; Lee & McMillen, 2008; Rodrigues et al., 2019, 2014a) suggests that a myriad of potential factors should be considered when assessing the quality of RC, and that four key domains may provide a core view of quality: Setting, Staffing, Treatment Approach, and Safety (Farmer et al., 2017).

This four-pronged conceptualisation covers a parsimonious set of domains and constructs that are relatively self-evident in their importance, measurable in fairly nonburdensome ways, and covers both safeguards against abuse and facilitators of positive change (Farmer et al., 2017). For example, regarding the Setting domain, homes with more age/interest-appropriate items (e.g., equipment, toys, games, books) showed better outcomes by the time of discharge than those with less adequate items in this arena, even after considering the home's treatment model and the severity and demographics of the youth (Farmer et al., 2017). Regarding the Staffing domain, the providers and their selection, training, and support are key, regardless of the treatment approach/model adopted (Anglin & Henderson, 2024). Regarding the Treatment Approach domain, behaviourally focused treatment was associated with a reduction in CBCL scores (Badura Brack et al., 2012; Scholte & Van Der Ploeg, 2000). Finally, the Safety domain is also particularly prominent, such as rules and structures that promote safety, discipline that is fair and not excessive, and safeguards that reduce the fear of abuse by staff or other youth (Anglin, 2004; Megivern et al., 2007).

This conceptual approach would allow for a more exploratory approach regarding young people's experiences of TRC, and additional domains identified as critical would be based on the voices of young people themselves (Castro et al., 2024).

Current Study

Background

This convergent parallel mixed methods study examined young people's perceptions and experiences of TRC (qualitative) and their profile characteristics and psychopathology (quantitative). Integrating such data may provide insight into how young people with different profile characteristics perceive and experience TRC and provide crucial clues on how quality can be strategically enhanced for young people with different needs. 14 young people (up to 18 years old) residing in five of the seven existing TRC facilities in Portugal participated in this study. Qualitative and quantitative data were collated in person during a day visit to each participating TRC facility over a four-month period (September-December 2022).

Prior to this study, a quantitative and qualitative systematic review (Castro et al., 2023, 2024) was published to inform this study. The quantitative systematic review provided a comprehensive summary and evaluation of the current state of knowledge and development worldwide regarding the identification of critical factors associated with the success of TRC (Castro et al., 2023). The qualitative systematic review adopted the Farmer et al. (2017) four-pronged conceptual framework (Setting, Staffing, Treatment Approach, and Safety) to identify quality indicators from young people´s beliefs and experiences of TRC for the first time (Castro et al., 2024).

The findings from the later study indicated that the four domains were robust and provided a practical framework, but insufficient when identifying quality indicators that can assess how well services engage young people as another critical domain emerged: the Milieu Factor (i.e., a factor that supports healing and growth–the change work and recovery of mental ill-health and emotional distress [Ennals et al., 2021]) and appeared to be especially important for young people in CPS (Castro et al., 2024). This is particularly relevant for young people in the Portuguese context, as it is exclusively for young people in the CPS. According to young

people in the CPS, services that have the Milieu Factor are more likely to respond to their complex needs and make a lasting difference in their lives (Castro et al., 2024). Therefore, five domains (Setting, Staffing, Treatment Approach, Safety, and the Milieu Factor) were adopted.

Following ethical approval from the ethics committee of the university (Ref:28/2022), a presentation of the research project to the directors of all seven existing TRC facilities in Portugal was conducted by the lead author online via Zoom, and the nature and requirements of the study were outlined. Specifically, services were informed of the (a) objectives of the study, (b) what participation in the semi-structured interview consisted of, (c) the number of participants required, and (d) the recruitment process and requirements regarding obtaining authorisation from the legal representative of all young people below the age of 18 and the young people themselves. Directors from each TRC facility confirmed their voluntary participation via email.

Qualitative and quantitative data were collected by the principal author (with no affiliation to the TRC facilities). All authors had no conflict of interest and this research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Sampling-Sites

All seven existing Portuguese TRC facilities targeting young people with severe emotional and behavioural problems were invited to participate, and *not* those targeting young people with disabilities or unaccompanied minors. The two TRC settings that did not participate were unable to do so, as the young people at the time of data collection did not fit the study's requirements (e.g., young people below the age of 18). Therefore, this study focused on the majority of TRC facilities in Portugal, all of which were private, non-profit TRC facilities that treated 62 young people (M =12.4, SD =2.07). Three were in a rural setting, two

were in an urban setting, three were female-only settings, and two were male-only settings. At capacity, these settings could host between 13 and 22 young people. At the time of data collection, not all TRC facilities were at maximum capacity and hosted between 10 and 15 young people. The average length of stay in TRC ranged from 3 months-325 months (M=32.4, SD=87.3).

Four of the five facilities had a treatment model with a strong cognitive-behavioural element and included a token economy. One facility adopted the treatment model developed by the Mulberry Bush School, UK, which has a strong psychodynamic element. All young people had access to a psychiatrist every fortnight, weekly individual and group therapy (except in one TRC facility), weekly psychoeducation and independence group (except in one TRC facility), daily community reunions, weekly assemblies, and one TRC also offered animal therapy and speech and language therapy.

Each TRC facility consisted of a director (a social worker or psychologist responsible for the coordination of the care worker team and general oversight of the TRC facility), a care worker team (a social worker or psychologist responsible for developing a case plan for each child or youth), a caregiver team (responsible for supporting the daily routines of young people in TRC), a general service team, a psychiatrist, a psychologist, and teachers available on-site. However, one TRC facility did not have a psychologist, as the previous psychologist had left, and the position was not filled. All staff members had access to external and regular supervision, except in one TRC facility in which supervision was provided when deemed necessary. All TRC facilities had a predefined training schedule for all workers.

Sampling-Participants

A maximum of five young people who met the requirements of this study and resided at each of the five TRC facilities were invited to participate (43.3% of young people).

Consequently, 15 young people volunteered to participate (24.2% of all young people), and one young person dropped out during the semi-structured interview because they were uncomfortable with being recorded, resulting in the participation of 14 young people (22.6% of all young people).

Table 7 provides a breakdown of participants' sociodemographic characteristics. Young people had an age range of 14-18 years (M=16.3; SD= 1.8), were mostly female (n= 10; 71.4%), and Portuguese (n= 13; 92.9%). 35.7% of young people had a disability (e.g., intellectual disability, cognitive delay) and regarding their education, most young people had access to an alternative curriculum (n= 7; 50%) and two repeated school years (n= 5; 35.7%). Most young people had entered TRC for less than a year from the point of data collection (n= 7; 42.9%), and all young people were referred to TRC due to serious behavioural issues. All the participants were taking psychiatric medication under the supervision of a psychiatrist. The main reason for their protection was emotional and physical neglect (n= 7; 50%), but most had experienced multiple forms of abuse (n= 11; 78.6%). All young people had a history of residential placements and an intervention plan in which the primary objective of the majority was family reunification (n= 10; 71.4%). Most of the young people had regular family visits (n= 11; 78.6%).

Table 7

Sociodemographic Characteristics of Young People

Sociodemographic Characteristic	Full Sample	
	n	%
Sex		
Female	10	71.4
Male	4	28.6
Nationality		
Portuguese	13	92.9
Brazilian	1	7.1
Disability		
No disability	9	64.3
Mild-moderate disability	5	35.7
Access to education		
National curriculum	6	42.9
Alternative curriculum	5	50
No access	1	7.1
Repeated school years		
No repeated years	5	35.7
1 year	4	28.6
2 years	5	35.7
Length of stay		
< 1 year	7	42.9
1 - 2 years	5	35.6
3-6 years	1	7.1
³ 7 years	1	7.1
Reason for child protection		
Emotional and physical neglect	7	50
Physical abuse	7	50
Sexual abuse	4	28.6
Intervention plan		
Family reunification	10	71.4
Institutional reintegration	2	14.3
Autonomy	1	7.1
Family contact		
Family visits	11	78.6
Home visits	7	50
Emails and phone calls	10	71.4
No contact	1	7.1

Measures

During each session delivered in person, each young person was asked to complete a sociodemographic questionnaire, participate in a recorded semi-structured interview, and

complete the YSR. For every young person who participated, a staff member completed a sociodemographic questionnaire and the CBCL about that young person.

Sociodemographic Questionnaires

Young people and staff completed a Portuguese sociodemographic questionnaire created for the purpose of this study and based on the findings of the quantitative systematic review (Castro et al., 2023). The questions were either open or choice questions. The sociodemographic questionnaire was not pre-tested with young people or staff in TRC prior to data collection. For young people, the sociodemographic questionnaire included quantitative and qualitative data on key profile characteristics, such as sex (male, female), nationality, disability, and access to education. For staff, the sociodemographic questionnaire included quantitative and qualitative data about young people's key profile characteristics, such as age, length of stay, reasons for child protection (emotional and physical neglect, physical abuse, sexual abuse), intervention plan (family reunification, institutional reintegration, autonomy), and family contact (family visits, home visits, emails and phone calls, no contact).

Semi-structured Interview

The Portuguese semi-structured script was specifically elaborated by the authors of this study to identify a subset of factors that contribute to youth improvement in TRC and was not pretested with young people prior to data collection. The questions were anchored within four critical domains (Setting, Staffing, Treatment Approach, and Safety) (Farmer et al., 2017) and the findings of a quantitative systematic review that identified non-specific and specific treatment factors and their association with psychopathology (Castro et al., 2023). The first block consisted of a warm-up question (*To start this interview and to get to know you better if you had to introduce yourself to someone what would you say?*). Proceeded by a block of open-

ended questions devoted to their experience with TRC for each critical domain (e.g., Staffing*: How would you describe your relationship with the staff?*). Semi-structured interviews were designed to help young people explore their subjective experiences of TRC and to identify factors that are important for improving TRC from their perspective. For each interview, the same structure and sequence of thematic blocks and questions were followed. Finally, young people were encouraged to make final comments (*We are now coming to the end of this interview, but I would like to give you the opportunity to make any additional comments or ask a question?*). A copy of the semi-structured interview script is available from the corresponding author, upon request.

The recorded interview for each participant lasted between 4 min and 32 sec– 25 min and 43 sec (*M*=12 min and 13 sec, *SD*=10 min and 24 sec) and was performed in a private room in the TRC facility in the presence of the main researcher only.

Questionnaire Focused on the Characteristics of the Residential Setting

The director from each participating facility completed a questionnaire that focused on the characteristics of TRC. This included an overview of the programme (e.g., size, service offered, model/approach to treatment), questions about staffing (e.g., professional expertise, training, supervision), and physical aspects of the facility (e.g., size, ownership, type, location).

Youth Self Report

The Youth Self Report (YSR) for ages 11-18, validated and applied to the Portuguese population (Achenbach et al., 2014), integrates the Achenbach System of Empirically Based Assessment (ASEBA), and was completed by young people to screen for emotional and behavioural problems over the last six months. This self-report questionnaire consists of three parts. The first 17 items relate to interests, competencies, and social activities, and the second

consists of 112 items that use a *Likert* scale in which young people select one of three options when answering each item (0= *not true*, 1= *sometimes true*, and 2= *true or mostly true*). These 112 items are associated with problems on a syndrome scale in eight different categories: anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behaviour, and aggressive behaviours. The first three subscales refer to 'internalising' symptoms, and the last two refer to 'externalising' symptoms. Overall, behavioural and emotional functioning is measured by the total problem score and includes first-order scales that have been empirically validated or *the Diagnostic and Statistical Manual of Mental Disorders* (DSM-V; American Psychiatric Association, 2013)-oriented scales and second-order scales such as internalising and externalising symptoms. Lastly, it includes one open question to further understand their feelings, behaviour, and interests.

To capture the key emotional and behavioural problems of young people in TRC from their perception, only the second part of the questionnaire and second-order scales (internalising and externalising symptoms) were analysed, as this is frequently used to calculate consistency among informants.

Child Behaviour Checklist 6-18

The Child Behaviour Checklist (CBCL) for ages 6-18, validated and applied to the Portuguese population (Achenbach et al., 2014), is a component of ASEBA and was completed by staff (primary caregiver) to screen for emotional and behavioural problems over the last six months. This behaviour checklist consists of three parts. The first is a competency scale that focuses on activities and school. Followed by 113 items of structured questions using a *Likert* scale in which staff selected one of three options when answering each item (0= *not true*, 1= *sometimes true*, and 2= *true or mostly true*). The first three subscales refer to 'internalising'

symptoms, and the last two refer to ‘externalising’ symptoms. These 113 items are associated with problems on a syndrome scale in eight different categories: anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behaviour and aggressive behaviour. Overall, behavioural and emotional functioning is measured by the total problem score and includes first-order scales that have been empirically validated or the DSM-V (American Psychiatric Association, 2013)-oriented scales and second-order scales, such as internalising and exxternalising symptoms. Finally, it includes two open questions to further understand young people’s problems and their strengths from the perspective of the primary caregiver. As with the YSR, only second-order scales (internalising and exxternalising) were analysed.

Data Collection and Analysis

Young people were only able to participate after informed consent was obtained from their legal representatives. Before participation, young people were informed about the nature of the study so that they could also make informed decisions on whether to participate. They were informed that participation was voluntary and confidential and that their personal data would be processed exclusively for this study and based on their informed consent. The limits of confidentiality were explained to each participant, as this was especially important considering the sensitive topic at hand and the vulnerability of young people. Data protection was ensured throughout the entire process, according to Act 3/2018 of Personal Data Protection and Guarantee of Digital Rights, and in Portugal, according to Law 58/2019, 8 August, regarding Personal Data Protection.

Individual CBCL and YSR scores were stored in a Microsoft Excel spreadsheet, and internalising and externalising scores were calculated manually. Sociodemographic data were

also stored in a Microsoft Excel spreadsheet. Databases were pseudonymised on a personal laptop, where access was encrypted using a password.

All semi-structured interviews were conducted in Portuguese, recorded with permission from all the participants, and transcribed and anonymised verbatim. Portuguese transcripts were uploaded to MAXQDA, and content analysis was conducted. The steps followed in the content analysis were as follows: (i) successive readings of the transcripts, (ii) text coding and definition of the categories of analysis, (iii) separation of the text according to the categories of analysis, and (iv) articulation of the content into results according to the research objectives. The recorded interviews were stored in SharePoint and could only be accessed by the research team.

Content analysis was conducted in an attempt to stay true to the text and achieve trustworthiness (Morse & Richards, 2002). The qualitative data were coded by the principal author (EC) into mutually exclusive categories and sub-categories, which were associated with descriptions and meaningful examples of young people's statements. A discussion was held with the secondary author (EM) until final codification was reached. Subsequently, a codebook was created based on the final categorisation and all transcripts were re-reviewed using the codebook. To ensure analysis reliability, an independent researcher (MP) coded 30% of the material separately. The Cohen Kappa coefficient was used to assess inter-coding agreement. A coefficient of 0.83 was obtained, indicating an almost perfect agreement (Landis & Koch, 1977). Disagreements were discussed and resolved by using an expanded codebook definition. Finally, EC and EM participated in the process of interpreting the obtained results to ensure an adequate and contextualised understanding of the phenomenon studied through the unique vision of young people. For each category, meaning units considered particularly illustrative were selected (i.e., excerpts of participants' responses/data that were coded in qualitative data analysis). For parsimony reasons, only the subcategories reported by five or more young people

were detailed in the text; all categories are described in Table 8. Following the content analysis conducted in Portuguese, young people's supporting statements associated with each reported category and subcategory were translated into English by the main author of this study, who was bilingual in both Portuguese and English.

Results

Quantitative

Results from the YSR internalising symptoms scale revealed that most young people were found to fall within the clinical or borderline range (*n*= 10; 71.4%) and were mostly female (80%). The results from the CBCL were similar, most young people were also found to fall within the clinical or borderline range (*n*= 11; 78.6%) and were mostly female (*n*= 8, 72.7%). Regarding the three categories of the YSR internalising symptoms scale, the results were similar to those of the CBCL, except for the somatic complaints category. In the YSR, most fell within the clinical or borderline range of the anxious/depressed category (*n*= 10; 71.4%), less than half fell within the clinical or borderline range of the withdrawn/depressed category (*n*= 6; 42.9%), and most fell within the clinical or borderline range of the somatic complaints category (*n*= 10; 71.4%). In the CBCL, most fell within the clinical or borderline range of the anxious/depressed category (*n*= 9; 64.3%), less than half fell within the clinical or borderline range of the withdrawn/depressed category (*n*= 6; 42.9%), and a minority fell within the clinical or borderline range of the somatic complaints category (*n*= 2; 14.3%).

On both the YSR and CBCL externalising scale, most were found to fall within the clinical or borderline range (*n*= 9; 64.3%) and were mostly female (66.7%). Regarding the rule-breaking behaviour category on the YSR and CBCL externalising symptoms scale, half were found to fall within the clinical or borderline range (*n*= 7; 50%). In the aggressive behaviours category, most were found to fall within the clinical or borderline range on the YSR (*n*= 8; 57.1%) and CBCL (*n*= 9; 64.3%).

Qualitative

In addition to the five critical domains (Setting, Staffing, Treatment Approach, Safety, and the Milieu Factor), an additional domain was deemed critical and was identified as profile characteristics. Table 8 shows the categories and subcategories discussed in the semi-structured interviews and provides information regarding the number of participants that reported each category and subcategory and the number of quotations associated with each category and subcategory (*f*), and the number of participants by category (*n*). Fictitious names were used to ensure the anonymity of young people.

Table 8

Categories and Subcategories in each Critical Domain

Macro-category	Category	Subcategory
Setting	Resources (*n*= 8; *f*= 15)	Available resources (*n*= 8; *f*= 10)
		More resources needed (*n*= 3; *f*= 5)
	Space (*n*= 4; *f*= 6)	Sufficient space (*n*= 2; *f*= 2)
		Good exterior (*n*= 1; *f*= 1)
	Building renovation (*n*= 1; *f*= 3)	Building maintenance (*n*= 1; *f*= 2)
		No changes to the environment (*n*= 1; *f*= 1)
Staffing	Staff support (*n*= 14; f= 62)	
	Communication skills (*n*= 14; f=23)	Listen and give advice (*n*= 7; *f*=13)
		Provide updates (n= 3; f=3)
		Need to improve communication skills (*n*= 3; *f*= 3)
		Honest (*n*= 2; *f*= 5)
	Staff dedication (*n*= 3; *f*= 3)	Vocation (*n*= 2; *f*= 2)
		Professional career development (*n*= 1; *f*= 1)
	Staff turnover (*n*= 3; *f*= 4)	

Macro-category	Category	Subcategory
	Inappropriate staff responses (*n*= 2; *f*= 3)	
	Informal goal setting (*n*= 2*; f*=2*)*	
Treatment Approach	Admission experience (*n*= 9; *f*= 18)	Received necessary information (*n*= 8; *f*= 8)
		Need time to adapt (*n*= 2; *f*= 6)
		Feel welcomed (*n*= 2; *f*= 2)
		Escorted by police officer (*n*= 2; *f*= 2)
		Unplanned admission (*n*= 1; *f*= 1)
	Behavioural management strategies (*n*= 7; *f*= 15)	Token economies (*n*= 6; *f*= 10)
		De-escalation techniques (*n*= 2; *f*= 2)
		Multiple uses of time-out (*n*= 1; *f*= 1)
		Medication (*n*= 1; *f*= 2)
		Visitor restriction (*n*= 1; *f*= 1)
	Participation experience (*n*= 7; *f*= 14)	Opinions are valued (*n*= 4; *f*= 6)
		Opinions are valued inconsistently (*n*= 3; *f*= 5)
		Daily chores (*n*= 2; *f*= 2)
		Daily assembly (*n*= 1; *f*= 1)
	Lifestyle (*n*= 4; *f*= 4)	Physical exercise (*n*= 3; *f*= 3)
		Change in eating habits (*n*= 1; *f*= 1)
Safety	Feeling safe (*n*= 9; *f*= 16)	Affirmation of feeling safe (*n*= 7; *f*= 8)
		Staff protection against peer victimisation (*n*= 3; *f*= 4)
		Staff protection from exterior (*n*= 3; *f*= 4)
	Rules and regulations (*n*= 7; *f*= 19)	Acceptance of rules (*n*= 6; *f*= 11)
		Blanket rules (*n*= 3; *f*= 3)
		Change in rules (*n*= 1; *f*= 1)

Macro-category	Category	Subcategory
	Productive free time (*n*= 1; *f*= 1)	
Milieu Factor	Relationship with the community (*n*= 8; *f*= 15)	Access to the community* (*n*= 4; *f*= 5) Education on-site (*n*= 3; *f*= 3) More access to the community (*n*= 2; *f*= 3) Maintaining relationships through social media* (*n*= 2; *f*= 2)
	Relationship with peers (*n*= 8; *f*= 10)	Peer contagion (*n*= 7; *f*= 9) Positive relationship with peers* (*n*= 2; *f*= 2)
	Relationship with the family (*n*= 7; *f*= 7)	Family involvement* (*n*= 5; *f*= 5) More home visits needed (*n*= 2; *f*= 2)
	Relationship with staff (*n*= 6; *f*= 8)	Staff are valued* (*n*= 6; *f*= 6) Preferential staff (*n*= 2; *f*= 2)
Profile characteristics	Risk profile characteristics (*n*= 6; *f*= 8)	Inability to accept placement (*n*= 5; *f*= 6) Aggressive behaviour (*n*= 2*; f*=2*)*
	Protective profile characteristics (*n*= 4; *f*= 8)	Acceptance of placement (*n*= 2; *f*= 4) Ability to ask for help (*n*= 2; *f*= 2) Future aspirations (*n*= 2; *f*= 2)

Note. n= The amount of young people that reported the phenomena; *f*= The frequency at which the phenomena was reported by young people; * Protective factors associated with trusting relationships in the Milieu Factor domain

Setting Domain

Resources

When describing their day, more than half (57.1%) of young people listed the available resources with an emphasis on digital media use, such as having access to a mobile phone and

a computer and being able to use social media platforms, such as WhatsApp and Facebook (e.g., “I go and watch television, go on my mobile, I have breakfast, go to the computer, we have two hours of the internet, Instagram, Facebook, WhatsApp, I have lunch and I play with the girls, we dance sing and watch Netflix.”, Elizabeth, 15 years old). Young people also described the different rooms available in TRC for different activities (e.g., “We have a kitchen, we have a cafeteria, we have two classrooms, one right classroom and one left classroom each with their own room, we have the care workers office there, and we have the Director's office.”, Jenny, 17 years old).

Staffing Domain

Staff Support

All young people spoke of receiving much-needed emotional and behavioural support due to the staff’s empathetic approach (e.g., “When I'm having a crisis, they are there, talking to me, calming me down. Those things.”, Mandy, 15 years old). The overall perception amongst young people was that the support provided by staff was pivotal to their progress and that staff had the necessary skills and availability to provide the support they required (e.g., “I have the necessary help and I always know that they will be there to help me. When I came here, I started to improve gradually, and my behaviour has improved thanks to the people who are here to help me. If it was not for them, I would not have good behaviour.”, John, 14 years old).

Communication Skills

All young people viewed staff as possessing crucial communication skills (e.g., “They listen and give advice.”, John, 14 years old) which correlated with their evaluation and characterisation of staff. This suggested that young people who viewed staff as possessing the necessary communication skills, such as being able to listen and give advice, experienced

positive relationships with staff in TRC (e.g., “I speak to them when I am feeling bad, for example, imagine I want to run away, make a mistake, I speak to the caregiver and I let them know I am not feeling well and I need to speak to them. After speaking to the caregiver, I can improve my behaviour by listening to their advice, and I feel good speaking with them. It is very good that the staff can help us, which is their job and not only that, but they also really like us a lot and I like them.”, Hannah, 16 years old).

Treatment Domain

Admission Experience

Most (64.3%) young people indicated that they had experienced a smooth transition into TRC which for young people meant receiving the necessary information in the form of an explanation by staff beforehand (e.g., “Yes, they do explain.”, Ryan, 14 years old). What appeared to be most important was a conversation with staff and sufficient time to process the transition. In one case where the young person had experienced an unprepared admission, a lack of communication and preparation by staff in the previous placement was emphasised (e.g., “Nobody warned me that I was coming here, nobody warned me, I used to run away a lot in the other institution, nobody warned me. So one day, I woke up, got up, saw my closet empty and saw some bags in another room and I thought, well I am going to go to my new life, but it was not the day after all but the next.”, Chloe, 17 years old).

Behavioural Management Strategies

The token economy was the primary behavioural management strategy described by less than half (42.9%) of young people and was described by young people in various forms, such as points system, colour system, and different floors to indicate the level of privileges (e.g., “We have colours and we are evaluated. We evaluated our day using colour. Depending on the colour, we are allowed to do things or not.”, Ryan, 14 years old). Young people appeared

to be motivated to cooperate and modify their behaviour with the view of obtaining privileges and leaving TRC as soon as possible (e.g., "...because here everything functions and has rules and we must abide by those rules, and by abiding by those rules correctly, we receive points that are essential for our departure from here. In other words, if we are well-behaved and do everything correctly, we will obtain points, which is every Thursday, we obtain points and receive a weekly evaluation…when we obtain 152 points, if I remember correctly, we will be able to get out of here.", Elizabeth, 14 years old).

Safety Domain

Feeling Safe

All young people affirmed that they felt safe in TRC (e.g., "Very safe.", George, 17 years old), and that the presence of staff enhanced their feelings of protection in TRC and the outside world (e.g., "I feel they can protect me from the external world.", Kyle, 17 years old).

Rules and Regulations

When asked whether they agreed with the rules and regulations, less than half (42.9%) of young people appeared to learn how to accept the rules over time and did not want to change any rules despite the associated restrictions and things they did not like (e.g., I think that's the rules are okay as they are.", Chloe, 17 years old). Young people's belief that staff were doing their best and flexible to their needs appeared to offer comfort to young people, and young people gave the impression that they felt listened to and had some control over their environment (e.g., "Well, there are rules and regulations and everything is not the way you would want it to be, but not everything is bad and they try to give you the most comfort possible and at the moment I am okay with my room, with the people, with the environment of the house and if there is anything I need I try to see with the care workers if they can change it or not or if they can change the environment of the house…", Hannah, 16 years old).

Milieu Factor Domain

Relationship with Peers

Most (64.3%) young people indicated how building trusting relationships with peers was challenging in TRC due to the severity of young people's internalising and externalising symptoms (e.g., "There are girls here that create problems and disturb the environment of the house and cause conflict, which is not good for the girls.", Hannah, 16 years old). All young people implied that witnessing others' maladaptive behaviour harmed them and the environment, which in turn harmed their connection with their peers (e.g., "The environment, it depends, if there is a person feeling down, we will all be in the same mood and the environment gets heavier between us. If someone else is fine, I am fine, and we are all fine, the environment will also be fine.", Ryan, 14 years old).

Relationship with the Family

Less than half (35.7%) of the young people emphasised the importance of continuing their relationship with their family and shared experiences of continued contact (e.g., "I continue to speak to my mother and father. We speak on a mobile phone through WhatsApp and video call and my sister comes and gets me from the bus station. It was my birthday recently, and I really enjoyed being with them.", Chloe, 17 years old). Having an ongoing connection with the family appeared to bring great happiness; communication and home visits were something to look forward to, while strengthening the connection with the community. The ability to go on home visits was particularly important to young people in TRC and those that did gave accounts of positive experiences and was seen as highly desirable and a motivating factor to improve behaviour (e.g., "What helps me improve my behaviour is speaking with my mum.", Carol, 16 years old). Indeed, half of the young people had home visits which may indicate higher-functioning parents and a higher probability of family reunification, which was the objective of most young people's intervention plans.

Relationship with Staff

Less than half (42.9%) of young people emphasised how they experienced a positive connection with staff and a small minority (14.3%) highlighted a better relationship with some rather than others (e.g., "It depends on the professional. I like them all because they help me a lot, but some are slightly more annoying than others are. I think it is our relationship, depending on the day, when they are in a good mood. If they're in a good mood, it's all good.", Elizabeth, 15 years old). Young people indicated that they respected staff and appreciated the challenging nature of their job (e.g., "...we have to listen to their side, working with 20 youth in one shift is not a great thing.", Chloe, 17 years old). Young people were able to empathise with staff, which is crucial when building trusting relationships; curiously, they were less empathetic towards their peers. Young people's acknowledgement and value placed on the relationship with staff is not surprising considering the nature of the support offered by staff, the interpersonal skills possessed by staff, and the dedication shown by staff in challenging circumstances, as reported by the young people themselves.

Profile Characteristics Domain

Inability to Accept Placement

Less than half (35.7%) of young people mentioned risk profile characteristics and specifically perceived that the treatment delivered would not be able to help them and were unable to perceive any benefits (e.g., "I do not feel safe because I do not like being here. I am safe in the outside world anyway.", David, 16 years old). Overall, those who felt this also expressed a strong desire to go home and did not agree with being in TRC, ("I am in this house, but they can't help me. I want to go home; my life is there.", Chloe, 17 years old). The desire to go home appeared to correlate with young people's perception that they did not need the treatment provided. These two beliefs could undermine the efficacy of the treatment provided

and indicated a strong inability to accept placement resulting in young people being less responsive to treatment.

Limitations

The interview script and sociodemographic questionnaire were not pre-tested on young people and staff in TRC before data collection which could have introduced bias in the results. Further work is required to validate the semi-structured interview script for the Portuguese population and worldwide in TRC. Young people's perceptions and experiences of TRC were only captured at one point in time; therefore, it was not possible to assess the evolution of young people's perceptions and experiences of quality in TRC.

Discussion

The study focused on a small number of young people in the majority of TRC facilities in Portugal. The four domains proposed by Farmer et al. (2017) provided a birds-eye view of the quality of TRC in Portugal and a practical framework to assess how well these services were engaging young people. According to these results, young people's perceptions and experiences of TRC have many similarities and were mostly positive. Despite the severity of young people's internalising and externalising symptoms, as reported by the YSR and CBCL (with a slightly higher proportion of young people falling in the clinical or borderline range on the internalising scale),TRC appeared responsive to their emotional and behavioural needs.

Specific profile characteristics of young people appeared to influence their perception of quality amongst sites, that is, sex and severity of internalising and externalising symptoms, regardless of the different modalities used. The findings revealed that females who had higher internalising and externalising symptoms had more negative perceptions and experiences of TRC than those with lower internalising and externalising symptoms. For example, negative subcategories in various categories across the domains, such as communication skills,

participation experience, rules and regulations, and relationship with family, were reported by females only. Furthermore, peer contagion was identified as a problem affecting peer relationships, with eight of the nine comments made by females. However, both females and males highlighted that they were unable to accept treatment because they were unable to see the benefits of treatment and wanted to go home. Overall, these findings are consistent with previous quality research in Portuguese RC where females evaluated the quality of RC units' services significantly lower than males in almost every dimension, including 'overall quality' (Rodrigues et al., 2014b).

Given the heterogeneity of young people in TRC, it is important to identify the combinations of risk and protective factors these young people present to ensure that the service is responsive to their individual needs. This may be particularly important for females who may present with higher internalising and externalising symptoms (Castro et al., 2023). TRC should include general components with relevance to the majority of youth and specified approaches targeted at subgroups (Boel-Studt, 2017; Castro et al., 2023).

The Milieu Factor domain emerged as particularly critical and focused on the extent to which young people experienced trusting relationships. Children and young people in RC have accumulated lived experiences where they may have learned that relationships with adults are a source of threat rather than safety (Holmes et al., 2018). Subsequently, they may struggle to form relationships that are trusting, culturally safe and have lasting impacts on their life trajectories (McPherson et al., 2024). The Milieu Factor and emphasis on trusting relationships are consistent with studies of milieu-based services (Green et al., 2019; Pecora & English, 2016), in which trusting relationships support healing and growth–the change work and recovery of mental ill-health and emotional distress (Bjørlykhaug et al., 2020; Ennals et al., 2021).

Indeed, trusting relationships with peers (Scholte & van Aken, 2006), staff (Harder et al., 2013; Pinheiro et al., 2024a) and family involvement (January et al., 2018; Kor et al., 2021) are crucial when considering the outcomes of TRC and beyond. Crucially, findings from this study extend the importance of trusting relationships beyond relationships in TRC and the family and emphasise the connection with those in the community, which research is yet to explore in more detail and yet an intrinsic part of the definition of TRC (i.e., "…and in collaboration with a full spectrum of community-based formal and informal helping resources" [Whittaker et al., 2015, p. 24]).

Distinguishing this critical domain allows focused attention to the aspect of TRC that is paramount to young people in the long term. Services can assess the extent to which they have the Milieu Factor and strategically adapt to enhance trusting relationships (Castro et al., 2024). According to young people, services that have the Milieu Factor are more likely to respond to their complex needs and make a lasting difference in their lives (Castro et al., 2024). When evaluating the extent to which TRC in Portugal has the Milieu Factor (i.e., trusting relationships with staff, peers, family, and the community), young people had a very positive relationship with staff, and there was evidence of strong family involvement for most, the difficulty appeared to lie in their connection with their peers and forming trusting relationships with other young people with emotional and behavioural problems in TRC. Previous research has found that young people's vulnerability to peer victimisation is heightened when they are placed with others who have entrenched behavioural and emotional difficulties (Moore et al., 2016). Many of these adolescents' aggressive or hostile behaviours might indicate maladaptive expressions of a desire for proximity and acceptance, given that this is the only model of affection they know (Crittenden, 1992). The influence process often occurs outside of awareness; young people may not intend to influence their peers, but they engage in

relationship behaviours that satisfy immediate needs for an audience or companionship, and these behaviours inadvertently influence themselves or others (Dishion & Tipsord, 2011).

Therefore, not only do staff need to prevent and protect young people from peer victimisation which young people reported staff did well, but they must also cultivate trusting relationships among peers, contributing to a sense of safety in TRC. Highly trained staff may be particularly important to counteract peer contagion, as in a Boys Town study; Family Teachers who had more programme experience had fewer problem behaviours in their home (Huefner & Ringle, 2012). This is the product of experience and ongoing training, and is verified through evaluation and a recertification process (Huefner & Ringle, 2012). The results of this study support the view that direct-care staff with longer tenures are more effective in helping behaviourally troubled youth control unwanted behaviours, which is consistent with research showing that adult oversight is a protective factor in correcting for negative peer influence (Laird et al., 2010; Vieno et al., 2009).

Regarding the Setting domain, access to internet-enabled digital tools (mobile phones, tablets, gaming consoles, and PCs) appeared to be particularly important to young people. Indeed, digital media use for young people in TRC has been found to facilitate elements of the five Cs associated with positive youth development: *Connection, Confidence, Competence, Character, and Caring* (Good, 2023; Gustavsson & MacEachron, 2015), which is particularly important for young people in TRC given the restrictions to the community and the important relationships they may have in this context. In this study, young people described social media as a way to maintain community relationships. According to young people, what may be crucial here is not a complete restriction of internet-enabled tools, but ensuring that young people have online opportunities for social connection, learning, and digital skill development whilst safeguarding youth from harm (Good, 2023).

Most strikingly, young people only mentioned their participation in daily chores and provided no further examples. Young people's voices appeared to indicate that they did not understand the extent to which they could participate, what participation was, or the power that their participation had to bring about change. It could be that young people were not fully participating to the extent they should and could be. The ability to engage youth in services remains a salient issue (Lindsey et al., 2014), and, as previously highlighted, youth may be involuntary clients and/or those who are not engaged in services (Boel-Studt et al., 2019), a salient risk profile characteristic for this population. For example, the daily assembly, a distinct moment for young people to participate was only mentioned once, and its description was consistent with existing research in that assemblies were seen as a means for "asking for" and raising concrete demands rather than an effective vehicle for stimulating organisation and participation (Monserrate et al., 2021). However, a lack of engagement can inhibit treatment effectiveness and leave open known risks of poor service outcomes (Wulczyn et al., 2007). Using a youth-centred approach to implement a flexible incentive-based participation programme may minimise challenges to engagement in services among youth in TRC (Boel-Studt et al., 2019). However, given the importance of participation, and considering that factors that promote engagement among youth in residential and high-level care settings are scarce (Boel-Studt et al., 2019), more research is needed to promote and enhance young people's participation experiences.

Regarding the Staffing domain, specific interpersonal skills, such as good communication skills and the particular virtues that enable better communication and relationship building, such as empathy, have been strongly associated with a positive therapeutic alliance with staff (Harder et al., 2011). Research highlights that, to achieve a trusting relationship, staff should be empathic, flexible, honest, respectful, reliable, and friendly (Harder et al., 2013; Wampold, 2015) which is consistent with the voices of young people in

this study. Perceiving staff as empathetic was crucial to feeling emotionally and behaviourally supported. Given the importance of good interpersonal skills by staff, specifically good communication skills, it seems crucial to promote and maintain these skills among all staff during TRC as a prior condition to achieve enduring behavioural change with young people. However, according to young people and existing literature, this goes beyond training initiatives and includes staff dedication. However, it can be difficult to retain educated staff in TRC because of the complex roles and responsibilities that lead to a high turnover rate, including but not limited to low pay, demanding work conditions, lack of recognition of the value of their work, and lack of input in important decisions (Krueger, 2007). To retain workers who are important intermediaries for clinicians, there must be an increase in job satisfaction and commitment, which, in turn, will lead to a longer stay in the organisation (Rose et al., 2010).

Young people discussed their experiences of treatment, and more than half (57.1%) reported a smooth admission, with numerous reports of receiving the necessary information and preparation before being admitted to TRC. Every element of the transition from current placement to the new placement requires careful consideration of young people's vulnerability and emotional needs. Literature suggests that admission to the TRC should be a gradual process rather than an event for this group of care leavers (Field et al., 2021; Kor et al., 2021). Young people should be fully informed and able to participate in the process as when they participate, and their voice is heard they gain more control over what is happening to them.

Regarding the treatment offered in TRC, the token economy is a behaviour modification technique that is based on the principles of operant conditioning and was the central behavioural management strategy adopted by staff. Research suggests that token economies are effective for young people in TRC, including those who are non-responsive to treatment (Fields et al., 2004). However, in practice, many of these programmes are poorly

conceptualised and operationalised, limiting their effectiveness and resulting in calls for the use of more individualised, child-centred approaches (Mohr et al., 2009). The key to effectively delivering a token economy may lie in staff competencies and the extent to which they have the necessary interpersonal skills to deliver it fairly and efficiently in the context of a trusting relationship.

Young people's experience of safety was cultivated by structure and stability in the living environment and staff actions (e.g., the need for care workers to act proactively to prevent and respond to peer victimisation for them to feel safe) (Kor et al., 2021). Targeted efforts to enhance the Milieu Factor would have a positive effect on all four domains, including safety, as one of the main challenges for young people in TRC may be their relationships with their peers.

Practice Implications for Social Work

The findings of this study have several implications for policy and practice in social welfare systems. Specifically, this study highlights that young people can provide invaluable insights into the quality of TRC. Adopting this conceptual framework may support participatory approaches which, in turn, may assist in giving young people a voice and an influence. With this in mind, social work practices and policies should be adapted to ensure that the voices of young people are taken into account so that TRC is youth-friendly and fit for purpose.

Focused attention on the Milieu Factor domain can inform the selection of interventions for young people. For example, peer groups or peer-led educational programmes may effectively boost self-esteem (Kaveh et al., 2014) and help adolescents build healthy peer relationships. Furthermore, working more closely with families in the community where possible (e.g., offering family therapy and family support) (Castro et al., 2024) may be key to

improving family functioning and thus improving family involvement and young people's relationship with their families (Castro et al., 2023). What is crucial here is treating the family as a whole (Sunseri, 2004, 2020), a critical relationship in the Milieu Factor domain for young people, especially when the end goal is family reunification, which is the case for most in this study. Critical to the success of any TRC intervention is to understand the practices that might potentially interrupt the trajectory towards isolation, poor social connections, and fractured trust, as well as the policies that frame and support those practices and related conditions (McPherson et al., 2024).

Directions for Future Research

Based on young people's perceptions and experiences, further research is needed to build on the conceptual framework proposed by Farmer et al. (2017), and focusing on the staff perspective. Investigating these two perspectives will assist in uncovering valuable information about their unique perceptions and experiences to further improve TRC. The sample should be expanded to include other TRC facilities in Portugal and worldwide. Children possess unique insights – ones that can and should contribute to the development of child welfare practice, planning, and policy (Fox & Berrick, 2007). Further research should capture young people's perceptions and experiences of TRC at multiple points in time and explore female and male perspectives regarding TRC quality to be responsive to their needs.

Conclusion

This study provides valuable insights into the perceptions and experiences of young people in TRC settings. Young people's perceptions and experiences of young people at different facilities in Portugal have many similarities and were mostly positive. However, the distinguishing factors influencing young people's perception of quality amongst sites appeared to be the sex of young people and the severity of internalising and externalising symptoms.

Females with higher internalising and externalising symptoms were more likely to have negative perceptions of TRC, consistent with previous findings in Portuguese RC (Rodrigues et al, 2019).

Furthermore, these findings highlight the importance of trusting relationships with peers, staff, family, and the wider community, which is of particular importance to young people in TRC, given the limited access to friends, family, and the community at large. To strengthen the Milieu factor, particular attention should be paid to peer relationships, as most young people reported experiencing peer contagion. Meaningful participatory approaches to assessing quality should be adopted, as demonstrated in this study, to understand how results are achieved and gain more durable positive treatment results. Policies and practices should be revised to take the voices of young people into account, so that services are youth-friendly and fit for purpose.

Qualitative Empirical Study

The study is currently under review.

Castro, E., Magalhães, E., & Del Valle, J. F. (2025). *S*taff's perceptions and experiences of delivering therapeutic residential care in portugal: A qualitative study. *Residential Treatment for Children and Youth*.

Abstract

In Portugal, the number of young people placed in specialised residential care is steadily rising. These young people represent the most at-risk youth in the child protection system. However, research examining the quality of Therapeutic Residential Care (TRC) is scarce, predominantly focuses on generalist residential care, neglects the viewpoints of various professionals, and employs quantitative quality assessments that limit understanding of how outcomes are achieved. Therefore, in this study, we sought to identify a subset of factors that contribute to youth improvement in TRC based on staff perspectives. This cross-sectional qualitative study involved 13 staff members (psychologists, social workers, caregivers, and a teacher assistant) from five non-profit TRC facilities in Portugal, mostly female (77%) and aged 25-48. Staff members completed a sociodemographic questionnaire and participated in a semi-structured interview. Content analysis revealed seven critical domains: Setting, Staffing, Treatment Approach, Safety, Milieu Factor, Youth Risk Profile Characteristics, and Job Characteristics. Whilst staff generally had positive perceptions of delivering TRC, they also highlighted youth risk profile characteristics. Staff members emphasised their relationship with young people as critical to the success of TRC. Focusing on young people's strengths and strategically enhancing the Milieu Factor, such as offering targeted support to heal young people's relationships with peers and their families, may further disrupt the path towards isolation and secure the long-term success of TRC.

Keywords: therapeutic residential care, qualitative, staffs' perception and experience, quality

Introduction

Worldwide, there is limited evidence explaining how Therapeutic Residential Care (TRC) accomplishes its treatment objectives. TRC continues to be largely ambiguous (Castro, 2023; Harder & Knorth, 2015; Leipoldt et. al., 2019) with the crucial mediating factors that determine the success or failure of TRC yet to be identified (Lee & McMillen, 2008). The diversity in settings, treatment approaches, staff arrangements, residential unit sizes, and duration of care (Castro et al., 2023), coupled with the intertwining of daily life and therapeutic environments in residential facilities, poses ongoing challenges in comprehending the components, efficacy, and quality of TRC (Gazilj et al., 2021). In the Portuguese context, research has mainly focused on generalist RC and has not included the perspectives of diverse staff members (Rodrigues et al., 2014a, 2014b, 2019).

This cross-sectional qualitative study focuses on the perceptions and experiences of staff in a variety of capacities (e.g., psychologists, social workers, and caregivers) who work in Portuguese TRC settings for young people in the Child Protection System (CPS) but not in facilities that treat disabled youth or unaccompanied minors. Understanding the staff's perspective and providing all staff with opportunities to voice their perceptions and experiences to improve the service places value on their experience and may promote staff satisfaction, which, in turn, may promote staff continuity and trusting relationships with young people, a critical component of TRC (Castro et al., 2024, 2025).

Indeed, job satisfaction in TRC affects the well-being of employees and the development and emotional well-being of children in their care (Cantos-Egea et al., 2024). Furthermore, the inconsistent implementation of TRC has been identified as a major concern (Commission for Children and Young People, 2015). The implementation of services that aim to protect vulnerable children and young people is a complex endeavour that requires collective

and sustained efforts from multiple stakeholders across different service systems (Mildon & Shlonsky, 2011).

Studies have emphasised the importance of understanding the mechanisms behind positive treatment outcomes, rather than merely examining the results themselves, to achieve sustainable improvements (Harder & Knorth, 2015). Despite this, a universally accepted model for evaluating quality in social service environments has yet to be established or widely implemented (Lee & McMillen, 2008). An extensive examination of diverse studies and theoretical frameworks (Anglin & Henderson, 2024; Castro et al., 2023, 2024, 2025; Farmer et al., 2017; James, 2011; Lee & McMillen, 2008; Rodrigues et al., 2014a, 2014b, 2019) suggests that multiple factors should be considered when evaluating the calibre of RC, and that a focus on qualitative analysis may explain how the results are achieved (Castro et al., 2025). Therefore, four critical domains were adopted to provide a fundamental perspective on quality: Setting, Staffing, Treatment Approach, and Safety (Farmer et al., 2017).

The factors associated with each critical domain serve as risk or protective factors that affect young people's outcomes in TRC. For example, regarding the Setting domain, the size and structure of institutions are associated with runaway behaviour, with larger institutions showing lower rates of such incidents (Attar-Schwartz, 2012). In the Staffing domain, staff play a central role in forming therapeutic alliances with young people, which is crucial for ensuring that RC is a positive experience (Moore et al., 2017). Regarding the Treatment Approach domain, staff trained in trauma-informed care practices may reduce the risk of re-traumatisation and promote healing (Bryson et al., 2017). Regarding the Safety Domain, promoting positive peer relationships can serve as a protective factor against the negative effects of victimisation and promote safety (Rudolph et al., 2019). This conceptual approach would allow for a more exploratory approach regarding staff perceptions and experiences of

TRC, and additional domains identified as critical would be based on the voices of diverse staff members (Castro et al., 2024).

In Portugal, a staggering 95% of children in out-of-home care were placed in RC (ISS.IP, 2023). This is because foster care plays a minor role due to the limited number of families available for this task, who can fulfil the requirements prescribed by the Law for the Protection of Children and Young People at Risk, and when support and benefits are not considered compensatory (Delgado, 2010). Interestingly, while RC is often seen as a last resort, new guidance suggests that it can provide security and a sense of belonging when implemented effectively (Schofield et al., 2017).

According to Portuguese law, child and youth RC is defined as an out-of-home response prescribed by the CPS, which aims to ensure the safety, well-being, and development of abused and/or neglected children and youth (Law No. 23/2023). Placement in RC is largely driven by neglectful practices (69%), including inadequate supervision and failure to meet educational and health needs (ISS.IP, 2023), and can last until the youth are 21 years old, or until they are 25 years old when there are ongoing educational processes or professional training (Silva & Calheiros, 2022). The Portuguese out-of-home care system includes foster care, generalist RC settings, and specialised RC settings (i.e., emergency Shelters, RC to address therapeutic or educational needs for children and youth with severe mental health problems, and autonomy apartments) (Silva & Calheiros, 2022).

Most are in generalist RC settings, and a small minority (1.9 %) of young people in out-of-home care are placed in a specialised RC setting (ISS.IP, 2023). However, the number of young people requiring specialised RC services has significantly increased by 118% over the last eight years (ISS.IP, 2023), indicating that an approach with a strong therapeutic component is needed to address the needs of the most traumatised young people with more complex needs in the CPS (Castro et al., 2025). However, there has been limited investment in determining

the quality of TRC in Portugal, as existing research does not focus on TRC or include the perspectives of diverse staff members and has focused on caregivers only (Castro et al., 2025).

For example, studies exploring the quality of RC (e.g. Rodrigues et al., 2014a, 2014b, 2019) employed the Portuguese comprehensive assessment system for RC (ARQUA-P). This system is an adapted and translated version of the ARQUA research methodology (Del Valle & Bravo, 2007). ARQUA-P is an ecological evaluation framework that utilises mixed methods with an emphasis on quantitative analysis, draws from various information sources, and focuses on young people and their caregivers. Its aim is to evaluate the needs and psychological adjustment of children in RC, assess the quality of institutional services, and examine the interrelationships between these factors (Rodrigues et al., 2014a, 2014b, 2019). However, as it focuses on a quantitative analysis of the findings, more evidence is needed on how professionals assess the quality of TRC and whether critical factors have been missed. Therefore, this cross-sectional qualitative study aimed to examine the perceptions and experiences of staff members delivering TRC in Portugal.

Method

Participants and Settings

Thirteen staff members at five TRC facilities volunteered to participate and completed all the requirements of this study. The staff had an age range of 25-48 years (M=34.3; SD= 8.0), were mostly female (n= 9; 69.2%), single (n= 10; 76.9%), married (n= 2; 15.4%), or had a life partner (n= 1; 7.7%). Most staff members were social workers (n= 6; 46.2%) or psychologists (n= 4; 33%), followed by caregivers (n= 2; 15.4%), and a teacher assistant (n= 1; 7.7%). Over half (n= 7; 53.8%) of the staff had a master's degree, followed by a bachelor's degree (n= 4; 30.8%) or a postgraduate degree, and their time in service ranged from one to ten years (M=4 years 2 months, SD= 2 years 7 months).

Regarding TRC settings, five of the seven Portuguese TRC facilities agreed to participate. Most facilities (four out of five) employed a treatment approach with a strong cognitive-behavioural component, such as adopting a token economy system. The remaining facility adopted the Mulberry Bush School (UK) treatment model, which emphasised psychodynamic elements. All residents were provided with fortnightly psychiatric consultations as well as weekly individual and group therapy sessions (with the exception of one TRC facility). Additionally, weekly psychoeducation and independence groups were offered (except in one TRC facility) alongside daily community meetings and weekly assemblies. One TRC also included animal therapy and speech and language therapy in its programme.

The staff composed of a multidisciplinary team that included a director, care workers (usually social workers and psychologists), and caregivers. The director was responsible for the coordination of TRC services and care workers, as well as the management of human resources (e.g., recruiting, training, and supporting staff) (Delgado, 2006). Finally, caregivers, usually under the supervision of case managers, are frontline staff who support young people daily in rotating shifts (Magalhães et al., 2023). In addition to these staff members, TRC includes additional specialised professionals, such as a psychiatrist, a psychologist, a teacher, and teacher assistants available on-site (Castro et al., 2025). Most staff members received regular external supervision, with staff in one TRC facility only receiving supervision when deemed necessary. All TRC facilities adhered to a predetermined training schedule for their workforces.

Measures

Sociodemographic Questionnaire

The staff completed a Portuguese sociodemographic questionnaire designed specifically to capture their characteristics, such as profession, sex (male or female), age, marital status (single/married/separated/divorced/widowed), education (secondary education, bachelor's degree, postgraduate degree, master's degree, or time in service).

Semi-structured Interview

The authors developed a Portuguese semi-structured interview script with the objective of pinpointing the critical factors contributing to youth progress in TRC from the staff's perspective. The interview questions were structured around four key areas (Staffing, Treatment Approach, Setting, and Safety) (Farmer et al., 2017) and were informed by the results of a quantitative systematic review (Castro et al., 2023). The first section consisted of a warm-up question (*If you had to describe your work here in TRC, what would you say?*). Proceeded by a section of open-ended questions devoted to their experience with TRC for each critical domain (e.g., Setting*: How would you describe the environment of TRC, including the outdoor area? What are the resources and facilities available?).* For each interview, the same structure and sequence of thematic sections and questions were followed. Finally, the staff were encouraged to make final comments (*We are now coming to the end of this interview, but I would like to give you the opportunity to make any additional comments or ask a question?*).

The duration of each staff's recorded interview lasted between 9 min and 11 sec– 46 min and 05 sec (M=23 min and 06 sec, SD=10 min), and was performed in a private room in the TRC facility in the presence of the main researcher only.

Questionnaire Focused on the Characteristics of the Residential Setting

A questionnaire was completed by the director of each facility involved in the study. The questionnaire delved into the features of TRC, encompassing a broad overview of the programme (including its scale, available services, and treatment approach), enquiries about staffing (such as professional qualifications, training, and supervision), and physical attributes of the facility (such as dimensions, ownership status, and site).

Data Collection and Analysis

After obtaining ethical approval from the university's ethics committee (Ref:28/2022), an invitation to participate in this study was extended to all seven existing Portuguese TRC facilities that treated young individuals with severe emotional and behavioural issues, excluding facilities that treated disabled youth or unaccompanied minors. The lead researcher delivered an online presentation via Zoom to the directors of all the seven TRC facilities. The presentation outlined the study's purpose and requirements, detailing the (a) research objectives, (b) nature of participation in the semi-structured interview, (c) required number of participants, and (d) recruitment process, including the need for authorisation from the legal representative of all staff members directly interacting with young people in TRC. Each TRC facility director subsequently confirmed their voluntary participation through email correspondence. Two facilities were unable to participate, resulting in the participation of five TRC facilities.

Qualitative data were collated individually by the principal author of this study (with no affiliation to the TRC facilities) during a day visit to the TRC facility over a four-month period (September-December 2022). Prior to their participation, the staff members were briefed on the objectives of the study, enabling them to make an informed choice whether to participate. They were assured that their involvement was optional and confidential, with their personal

information being utilised solely for this research and based on their informed consent. Semi-structured interviews were conducted in Portuguese, with staff members granting permission to be recorded. The recordings were subsequently transcribed verbatim and anonymised. Given the sensitive nature of the topic and context, each staff member was explicitly informed of the boundaries of confidentiality. Throughout the process, data protection was upheld in accordance with Act 3/2018 of Personal Data Protection and Guarantee of Digital Rights, and in accordance with Portuguese Law 58/2019, 8 August, concerning Personal Data Protection. Data were securely stored on SharePoint, with access restricted to the research team. Portuguese transcripts were then uploaded to MAXQDA for content analysis.

A manifest analysis was adopted; therefore, the focus was to describe *what* the staff actually say, stay very close to the text, use the words themselves, and describe what is visible and obvious in the text (Bengtsson, 2016). The four main stages were followed: 1) decontextualization, 2) recontextualization, 3) categorisation, and 4) compilation (Bengtsson, 2016). This involved (1) multiple readings of the transcripts to familiarise with the text and establish meaning units created inductively, (2) re-reading the original text alongside the final list of meaning units and checking that all aspects of the content have been covered, (3) organising the text according to categories and sub-categories within distinct domains, and (4) conducting a synthesis of the content into findings aligned with the research objectives.

To ensure the trustworthiness and reliability of the data analysis, the following procedures were adopted: a) the principal author categorised the qualitative data into distinct groups and subgroups, accompanied by descriptions and relevant examples from young people's statements; b) the secondary author (EM) was consulted until the final classification was reached; c) a codebook was developed based on this categorisation, and an independent researcher (TP) coded approximately 30% of the material separately. Inter-coder agreement was assessed using the Cohen Kappa coefficient, yielding a score of 0.89, which indicates near-

perfect agreement (Landis & Koch, 1977). Discrepancies were resolved through discussion. The first and second authors then collaborated to interpret the findings, ensuring a comprehensive and contextualised understanding of the phenomenon from the unique perspective of young people. Illustrative meaning units were chosen for each category (i.e., excerpts from participants' responses coded during qualitative data analysis). For parsimonious reasons, only subcategories mentioned by seven or more staff members are detailed in the text, with all categories described in Table 1. Following the content analysis conducted in Portuguese, the main author, who was bilingual in Portuguese and English, translated the staff's supporting statements for each reported category and subcategory into English.

Results

Table 9 shows the categories and subcategories and provides information regarding the number of quotations associated with each category and subcategory (*f*) and the number of participants associated with each category and subcategory (*n*).

Table 9

Categories and Subcategories in each Critical Domain

Macro-category	Category	Subcategory
Setting	Indoor and outdoor space (*n*= 10; *f*= 19)	Additional rooms required (*n*= 5; *f*= 7)
		Homely (*n*= 5; *f*= 6)
		Sufficient outdoor space (*n*= 5; *f*= 5)
	Resources (*n*= 9; *f*= 29)	Available resources (*n*= 8; *f*= 18)
		Animals as therapeutic aids (*n*= 3; *f*= 4)
		Additional resources required (*n*= 3; *f*= 3)
		Mobile phone and internet restrictions (*n*= 2; *f*= 4)
	Building (*n*= 9; *f*= 20)	Small building (*n*= 4; *f*= 8)
		Not purpose-built (*n*= 3; *f*= 4)

		Purpose-built (*n*= 3; *f*= 3) New building (*n*= 2; *f*= 2) Disabled access (*n*= 1; *f*=1) Good maintenance (*n*= 1; *f*=1) Daily life is visible to the community (*n*= 1; *f*=1)
	Location (*n*= 6; *f*= 9)	Rural area (*n*= 4; *f*= 5) Residential area (*n*= 3; *f*= 4)
Staffing	Team performance (*n*= 10; *f*= 24)	Team is cohesive (*n*= 9; *f*= 16) Staff dedication (*n*= 4 ; *f*= 8)
	Communication skills (*n*= 8; *f*= 22)	Listen and give advice (*n*= 8 ; *f*=14) Transparent communication *(n*= 6; *f*= 8)
	Staff are supported (*n*= 4; *f*= 7)	
	Specialised staff are required (*n*= 3; *f*= 5)	
	Difficulty responding to individual needs (*n*= 1; *f*=2)	
Treatment	Participation experience (*n*= 13; *f*= 93)	Group meetings (*n*= 12; *f*= 32) Young people participate in everyday decisions (*n*= 12; *f*= 24) Opinions are respected (*n*= 10; *f*= 18)
	T	Young people participate in important life decisions (*n*= 6; *f*= 18)
	Treatment objectives (*n*= 13; *f*= 25)	Independence skills (*n*= 8; *f*= 11) Basic needs are met (*n*= 6; *f*= 7) Treatment objectives are clear (*n*= 5; *f*= 7)
	Access to education (*n*= 12; *f*= 26)	Education on-site (*n*= 10; *f*= 15) Education off-site (*n*= 5; *f*= 7) Access to an alternative curriculum (*n*= 3; *f*= 4)
	Person-centred (*n*= 12; *f*= 28)	Intervention is aligned to individual needs (*n*= 11; *f*= 21) Therapeutic plans and life plans (*n*= 3; *f*= 5)

		Caregivers offer individualised support (*n*= 2; *f*=2)
	Access to specialist support for mental health (*n*= 11; *f*= 28)	Psychologist (*n*= 11; *f*= 18) Psychiatrist (*n*= 6; *f*=10)
	Admission experience (*n*= 9; *f*= 21)	Time to adapt (*n*= 5; f= 7) Necessary information provided (*n*= 5; *f*= 6) Planned admission (*n*= 5; *f*= 5) Unplanned admission (*n*= 1; *f*= 1) Treatment is responsive if admission criteria is respected (*n*= 1; *f*= 1) Young people are made to feel welcomed (*n*= 1; *f*= 1)
	Behavioural management strategy (*n*= 8; *f*= 16)	De-escalation techniques (*n*= 4; *f*= 5) Token economy (*n*= 3; *f*= 6) Medication *(n*= 3; *f*= 4) Time-out (*n*= 1; *f*= 1)
	Unable to help all young people (*n*= 6; *f*= 10)	
	Treatment model (*n*= 5; *f*= 13)	
	Discharge experience (*n*= 4; *f*= 5)	Difficulties with family/social re-integration (*n*= 3; *f*= 4) Achieving autonomy post-discharge determines the success of treatment (*n*= 1; *f*= 1)
	Treatment is flexible (*n*= 4; *f*= 4)	
Safety	Protective factors (*n*= 11; *f*= 36)	Structure and routine (*n*= 11; *f*= 23) 24-hour supervision (*n*= 5; *f*= 8) Minimalist approach (*n*= 3; *f*= 3) High staff ratio (*n*= 2; *f*= 2)
	Young people are safe (*n*= 9; *f*= 9)	
	Rules and regulations (*n*= 7; *f*= 12)	Rules are appropriate and clear (*n*= 4; *f*= 6) General rules (*n*= 3; *f*= 3) Rules are flexible (*n*= 2; *f*= 3)
	Risk factors (*n*= 1; *f*= 1)	

Milieu Factor	Relationship with staff (*n*= 13; *f*= 53)	Trusting relationship with staff* (*n*= 13; *f*= 37) Preferential staff* (*n*= 5; *f*= 8) Difficulty establishing trusting relationships (*n*= 4; *f*=4) Staff proximity* (*n*= 2; *f*= 4)
	Relationship with the community (n= 13; *f*= 41)	Restricted access to the community (*n*= 11; *f*= 14) Access to the community* (*n*= 9; *f*= 17) External entities and stakeholder collaboration* (*n*= 4; *f*= 9) Relationships in the community are essential to treatment success* (*n*= 1; *f*= 1)
	Relationship with peers (*n*= 9; *f*= 22)	Peer contagion reduction* (*n*= 6; *f*= 15) Peer contagion (*n*= 5; *f*= 7)
	Relationship with family (*n*= 7; *f*= 21)	Family involvement* (*n*= 5; *f*= 13) Continued staff contact with family* (*n*= 3; *f*= 3) Challenges healing the family (*n*= 2; *f*= 3) Lack of family involvement (*n*= 2; *f*= 2)
	Therapeutic milieu* (*n*= 6; *f*= 10)	
Youth Risk Profile Characteristics		High severity of mental health problems (*n*= 7; *f*= 8) Inability to accept placement (*n*= 7; *f*= 7) Aggressive behaviour (*n*= 5; *f*= 6) Cognitive disability (*n*= 3; *f*= 5) Runaway (*n*= 2; *f*= 2) LGBT (*n*= 1; *f*= 1)
Job Characteristics	Negative job characteristics (*n*= 6; *f*= 15) High job satisfaction (*n*= 5; *f*= 7)	Challenging (*n*= 4; *f*= 11) Low salary (*n*= 2; *f*= 3)

*n= The amount of staff that reported the phenomena; f= The frequency at which the phenomena was reported by staff; * Protective factors associated with trusting relationships in the Milieu Factor domain*

Setting

Indoor and Outdoor Space

Less than half (38.5%) of staff identified the need for more differentiated spaces to better accommodate young people's needs. For example, a psychologist (female) noted, "It's small because young people sometimes need more privacy or different spaces, which can be challenging since we sometimes struggle to reinvent the space." Conversely, the same percentage of staff also valued the indoor environment's homely and family-like atmosphere, with a social worker (female) stating, "I think the family atmosphere in this house is very positive." Regarding outdoor space, again, less than half (38.5%) highlighted that young people have access to ample outdoor areas, such as a large garden where they can get fresh air or be alone.

Resources

Most (61.5%) staff viewed the resources as sufficient and diverse, often exceeding their initial expectations. For example, a caregiver (female) said:

> It's great—I never expected young people to have a football or basketball field. There are animals, a large outdoor space, and individual rooms with private bathrooms for each young person. They also have access to TVs, PlayStations, and table football.

Less than half (38.5%) highlighted that young people had access to specialised therapeutic resources, such as animal therapy. A psychologist (female) explained, "Young people have animal therapy on Fridays at 2 p.m."

Building

Staff identified certain features of the building that might not fully meet young people's needs. Less than half (30.8%) highlighted the limitations of a small building, with a psychologist (female) stating, "The building is so small, which makes things difficult." A small minority (23.1%) pointed out that the building was not purpose-built, describing it as

structurally fragile and risky if a young person slams a door or window. A psychologist (female) emphasised, “We need to constantly monitor these situations.” Conversely, 23.1% of staff reported working in a purpose-built building and recognised its benefits. A social worker (female) explained, “Compared to other houses in the country, this one has many advantages and was built from scratch. Others are converted from old hospitals or municipal buildings.”

Staffing

Team Performance

The majority (69.2%) of staff reported effective collaboration within a multidisciplinary team. This harmonious teamwork, as indicated by the staff, was facilitated through consistent meetings, open communication channels, and a shared commitment to fostering a therapeutic environment. For example, one male psychologist stated, “We always work as a whole, with the perspective of making the home environment itself therapeutic.” Team performance may have been further enhanced by the staff’s dedication to young people. Less than half (30.8%) emphasised their commitment beyond working hours, expressing that they genuinely care. One social worker (female) explained:

> This is not the type of job that you finish when you leave at the gate and turn off the button. We take their problems home and even assist in hospital visits out of hours when young people are in crisis, because we truly care. We want to know if they are okay because we are working with people, and they themselves feel it.

Communication Skills

Most (61.5%) staff stressed the importance of effective communication skills, including active listening, giving advice, and transparency. A psychologist (female) explained, “We are always open to dialogue. There is always someone available to talk to when a young person is struggling.” Less than half (46.2%) highlighted that a transparent approach to decision-making

was essential. Another female psychologist noted, “Nothing about their lives is discussed without their knowledge. We make decisions, but we always communicate them beforehand.”

Treatment

Participation Experience

All staff indicated diverse methods of participation and engagement of young people and emphasised that young people were not only given a voice but also could shape their personal journey and the day-to-day functioning of TRC. Most (92.3%) staff members described group meetings as a communal forum where young people could express their worries and initiate changes to the daily operations of TRC (e.g., “So the girls used to go to bed at 9:30 p.m. However, during assembly, the girls said that 9:30 p.m. was too early. This was discussed amongst the groups and adjusted at their request” [psychologist, female]). Staff also reported that young people could participate informally in everyday decisions, and staff encouraged them to express their individual preferences (e.g., “Whether in extracurricular activities, whatever it is, or in a piece of clothing, they are always heard when decisions are being made about them” [social worker, female]). Moreover, less than half (46.2%) of staff highlighted that young people participated in more important aspects of their lives (e.g., “Then the court itself summons the young people, and their rights are always taken into account” [psychologist, female]). Consistent with promoting a culture of participation, staff described actively listening to young people’s individual opinions and preferences so they could be adhered to when possible (e.g., “We always try to consider what is most beneficial for that young person and respect their opinion and preference as much as possible” [psychologist, male]).

Treatment Objectives

The staff described how they fostered independence in young people throughout the various phases of TRC treatment. Regarding the latter stages, young people moved to a unit with a greater emphasis on autonomy in preparation for community reintegration upon discharge, as explained by one female psychologist:

> They move to the Gold unit, a unit of preparation for autonomy. Here, evaluation is less frequent, and caregivers provide emotional support while gradually stepping back. They remind the young person of the rules, but the young person learns to manage, like waking up on their own, for example, allowing natural development within acceptable norms. There are two levels of assessment: An initial quantitative evaluation to help with the transition, which eventually gives way to a more qualitative, ongoing assessment.

Staff also perceived that ensuring the basic needs of young people was a priority and that this was fulfilled (e.g., "I have to ensure that all their rights are fulfilled and young people have access to essential goods in their day-to-day lives" [social worker, female]). Treatment objectives were targeted, clear, and adapted to the individual needs of young people (38.5%). A social worker (male) explained:

> We take advantage of the first week to make a diagnostic assessment of the placement, and from there we define objectives and develop an intervention plan for that young person to achieve those goals and then proceed to other objectives

Access to Education

Most (76.9%) staff reported that young people had access to on-site education. According to staff, having access to education on-site was perceived as advantageous for a group that typically struggled to engage with educational services in the wider community (e.g.,

"As for school being inside, for these young people this is an asset because they were all almost dropping out of school and missing a lot; therefore, it allows them to more or less do the school part here..." [social worker, male]). Also, 38.5% of staff reported that some young people were able to access education off-site (e.g., "Young people who are doing professional courses leave early to take the transport to go to school" [psychologist, female]).

Person Centred

The majority (84.6%) of staff believe that treatment in TRC aligns with the individual needs of young people at all stages. This was achieved by considering each young person's unique profile and tailoring the treatment accordingly. For example, a psychologist (female) explained:

> All young people welcomed here have specific needs, and there are different types of young people with varying levels of functioning and behaviours. We conduct diagnostic assessments at the family, health, education, and skills levels. These assessments help us identify each young person's needs and determine the best approach for their care.

Additionally, therapeutic plans are reviewed regularly and adjusted as needed. A social worker (female) noted, "Individual therapeutic plans are created and reviewed every three months." Staff also see caregivers as providing essential individualised support. A psychologist (female) shared, "Caregivers oversee certain aspects—such as attending to the young person's wardrobe or basic needs like underwear, shoes, and socks—not because they have a privileged relationship, but to ensure attentive support where needed."

Access to Specialist Support for Mental Health

Most (84.6%) of the staff mentioned having access to a psychologist and highlighted the benefits of this therapeutic input. One psychologist female stated:

> Having the psychology office on-site is a major benefit because it allows more control and easier access. Young people who are slightly unstable in school don't need to travel far, and they can have a quieter space for therapy, especially since the issues they face are often complex and deep.

Less than half (46.2%) of the staff also mentioned the support provided by the psychiatrist (e.g., “Here we have a psychiatrist who supports the house” [social worker, female]).

Admission Experience

Staff acknowledged young people’s needs upon admission and noted that they required time to adapt (38.5%). For example, a social worker (male) stated, “Initially, young people need time to get used to how things work and to understand the rules.” The staff perceived that the necessary procedures were in place to ensure a smooth transition (38.5%), highlighting that young people received the required information upon arrival. A psychologist (female) explained, “We give young people all the information they need about the house.” Additionally, most staff (38.5%) emphasised that admissions were well planned. A social worker (male) described:

> They arrive here and everything is explained. We assess the situation, either with the old institution or with the social worker who is going to work with the young person, and we inform the young person about why they are here, how the house works, and go from there.

Behavioural Management Strategy

The staff described using various behavioural management strategies, including de-escalation techniques (30.8%). For example, a psychologist (male) stated, “Not responding reactively, therefore, not reacting, but rather, responding beyond what the young person is saying.” They also employed token economy approaches (23.1%) to systematically reinforce target behaviours. A social worker (female) explained, “Okay, the grades are given, then we

talk a little about the evaluation." Additionally, medication is used as an emergency strategy only in specific challenging moments and under the supervision of a child psychiatrist. As one psychologist (female) noted, "Medication and SOS prescriptions are used for specific situations, with the psychiatrist supporting the process."

Safety

Protective Factors

A combination of protective factors and adequate policies and procedures regarding young people's safety was predominantly emphasised by staff. Most (84.6%) staff pointed out the importance of structure and routine (e.g., "There is a predictability in the routine, and in the daily activities" [psychologist, male]). Less than half (38.5%) emphasised 24-hour supervision (e.g., "There is always someone available in the house 24 hours a day, young people are never left alone in self-management" [psychologist, female]). A small minority (23.1%) highlighted the benefits of a minimalist approach to promote safety, where important objects and small furniture are removed to reduce risks (e.g., "In a minimalist house, we don't have important objects, we don't have those small pieces of furniture that we know they can easily grab. This helps to minimise risk" [social worker, female]).

Young People are Safe

The staff's positive evaluation of policies, procedures, and protective safety factors was consistent with their perception that young people were safe in TRC. For example, a psychologist (female) stated, "In physical terms, we always try to ensure the safety of our young people, and there are several measures in place to make this happen."

Rules and Regulations

Less than half (30.8%) of staff highlighted that the rules and regulations were clear (e.g., "The rules are clear and based on predefined criteria, not made up" [psychologist,

female]). A small minority (23.1%) of staff believed that general rules were necessary for the safety of young people (e.g., “For their safety, there need to be rules” [caregiver, male]).

Milieu Factor

Relationship with Staff

All staff members agreed that trusting relationships with young people are essential for effective treatment in TRC. For example, a psychologist (female) stated, “A relationship based on trust, compassion, and availability makes all the difference.” A small minority (15.4%) noted that staff proximity and being physically close can foster trusting relationships, with a social worker (male) remarking, “Always being close to them.” Staff also emphasised that without such relationships, their ability to help young people was limited—for instance, a psychologist (female) noted, “If they don’t have a real relationship with their caregiver, it becomes very difficult to intervene.” Finally, less than half (38.5%) of staff highlighted that young people may prefer certain staff members over others, often based on personality or profile characteristics. A psychologist (female) explained:

> They have their favourites and feel more empathy toward some staff members, but our team’s diversity in terms of age, gender, and profile helps young people find a good match and enables them to connect with the staff member best suited to them.

Relationship with the Community

Striking a balance between access and restricted access to the community was deemed essential by most (84.6%) staff (e.g., “Their outings are not like those in a generalist home where they leave every day. This protects them because we can supervise more and prevent risky behaviours. But, at the same time, we need enough flexibility so they are not completely isolated from the outside world, which could have negative effects” [psychologist, male]).

Crucially, most (69.3%) of staff were able to provide many examples of young people being involved in the community. One social worker (female) stated:

> We currently have young people attending football clubs, young people in Sunday school, young people attending mass, going swimming, and at other times, we have had young people skating, and in music school. They end up being very involved in the community, and everyone knows them; they are cherished. We have, for example, young people carrying out an informative project for the local authority, and this work has been highly praised.

Less than half (30.1%) highlighted how they collaborated with external entities and stakeholders in the community to ensure that the needs of young people were met (e.g., "We articulate with the external entities and provide support and information to the court" [social worker, female]).

Relationship with Peers

The staff described peer relationships in terms of protection from peer contagion and did not provide any examples of positive relationships among young people. Regarding protection from peer contagion, most participants (76.9%) described how staff responded proactively to prevent conflicts among young people and intervened swiftly when conflicts arose (e.g., "Prevention is carried out on how to have healthy relations between them, but also when these situations happen, the team quickly intervenes and tries to solve the situation" [psychologist, female]). Regarding peer contagion, nearly half (38.5%) of staff highlighted how young people had difficulty establishing and maintaining healthy relationships with their peers (e.g., "There are frequent conflicts, and they often have trouble respecting their peers" [social worker, female]).

Relationship with the Family

Less than half (38.5%) of the staff highlighted family contact in various forms, such as family visits (e.g., “Some girls have visits with their family members” [psychologist, female]). A small minority (23.1%) of staff explained how care workers kept in close contact with families (e.g., “The social workers are in constant articulation with the families, regularly calling and checking how things are going” [psychologist, female]).

Youth Risk Profile Characteristics

Staff members mentioned youth risk profile characteristics, such as a high severity of mental health problems, noted by over half of the staff (53.8%) (e.g., “The programme has changed, and now we have more young people with serious mental health issues and suicidal thoughts. Some even attempt to harm themselves, which raises concerns about their safety and whether they can be discharged safely—at any moment, they could be at risk” [psychologist, female]). More than half (53.8%) of staff perceived that some young people were not responsive to treatment; in such cases, staff believed this significantly compromised treatment (e.g., “If they are unwilling or upset, then there is nothing we can do. If they don't want help, it’s impossible to make progress” [psychologist, female]).

Discussion

This qualitative study, employing a cross-sectional design, sought to investigate how staff members in Portugal perceive and experience TRC. This study utilised the conceptual framework put forth by Farmer et al. 2017(Setting, Staffing, Treatment Approach, and Safety). These core domains served as a foundation for further enquiry, leading to the identification of three additional domains: Milieu Factor, Youth Risk Profile Characteristics, and Job Characteristics.

Staff generally reported positive perceptions and experiences of delivering TRC across the domains. A recent systematic review of job satisfaction in RC found that despite evidence

based on deficits such as job stress, depersonalisation, lack of institutional support, secondary traumatic stress, and compassion fatigue, protective resources such as self-care, sense of coherence, team supervision, and achievement promotion enhanced job well-being (Cantos-Egea et al., 2024). However, young people were mostly described in terms of risk factors (e.g., high severity of mental health problems, inability to accept treatment, and aggressive behaviour), and their strengths seem to be overlooked. Focusing on youth protective factors may play a vital role in promoting resilience and positive outcomes amongst young people (Lou et al., 2018). Some studies have found that children in certain RC facilities demonstrate higher levels of resilience than their peers in other settings (Van Breda, 2015). A more balanced approach that considers strengths, youth protective factors, and resilience (Pinheiro et al., 2025) could lead to more effective support for young people in care. This aligns with calls in the field to focus on positive youth development and factors that enable young people to thrive, rather than solely on risk prevention (Case, 2006; Forrest-Bank et al., 2015).

As such, the Milieu Factor domain allows services to assess the extent to which they promote trusting relationships for young people in and outside TRC. According to the perceptions and experiences of staff, a critical relationship in the Milieu Factor domain was the staff's ability to establish trusting relationships with young people, and this relationship was seen as vital for the success of treatment. A high level of relationship continuity may explain how staff were able to foster trusting relationships with young people, as more than half of the staff had been employed at the TRC facility for an extended period (4-10 years), suggesting a stable core of highly skilled staff and a high level of relationship continuity with young people. Relationship continuity is particularly crucial, as it may be fundamental when establishing trust-based relationships, especially for youth in the CPS (Castro et al., 2024, 2025), and may partly explain the staff's ability to foster trusting relationships with young people.

Regarding the staff's perception of young people's relationship with the community, most staff highlighted that striking a balance between access and safety is important. Young people in TRC face several complications when accessing the community, primarily due to their complex behavioural and mental health needs, which require incorporating stigma-reduction strategies and resilience-promoting interventions in TRC programme that could enhance young people's ability to successfully integrate into the community (Lou et al., 2018). Successful transition from TRC often depend on continuity and connections with the family, staff, and culture. For example, working closely with families in the community where possible (e.g., offering family therapy and family support) may be key to improving family functioning as well as young people's relationships with their families (Castro et al., 2023, 2024, 2025). The essential aspect here is considering the family unit as a whole (Sunseri, 2004, 2020) and represents a vital connection within the Milieu Factor domain for young people.

When evaluating the extent to which TRC in Portugal has the Milieu Factor (i.e., trusting relationships with staff, peers, family, and the community), all staff placed great emphasis on their relationships with young people; however, less emphasis was placed on young people's peer and family relationships. Indeed, trusting relationships with staff provide support, protection, and a sense of trust, which are essential for the therapeutic process and positive development of young people (Gallagher & Green, 2012). However, trusting relationships with staff serve merely as a building block to promote trusting relationships with peers, family, and the community, and may be most important for young people's long-term well-being and successful out-of-care transition.

Regarding the Setting domain, staff highlighted both positive (e.g., homely, sufficient outdoor space) and challenging (e.g., insufficient differentiated rooms, small building) characteristics associated with the building and indoor space. The latter being a consequence of the building not being purpose-built. Staff who worked in purpose-built buildings

acknowledged their privileged situation compared to other buildings in the country. Purpose-built environments play a crucial role in TRC for young people with mental health issues. The built environment has direct and indirect effects on mental health, with design elements affecting young people's ability to regulate social interactions and adjust to their surroundings (Evans, 2003).

In contrast, staff were generally impressed with the available resources for young people and highlighted an array of resources (e.g., music, books, mobile phone, social media, computers, outdoor spaces with sports equipment). Indeed, adequate available resources have been found to be vital components for promoting peer relationships. For example, young people in residential care reported that engagement in sports and physical activity developed their confidence, competence, character, and connections (Quarmby et al., 2019). Furthermore, promoting positive peer relationships can serve as a protective factor against the negative effects of victimisation and promote safety (Rudolph et al., 2019). TRC homes with more age/interest-appropriate items (e.g., equipment, toys, games, books) showed better outcomes by the time of discharge than those with less adequate items in this arena, even after taking into account the home's treatment model and severity and demographics of the youth (Farmer et al., 2017), highlighting the importance of adequate resources for young people in TRC, especially in the context of stimulating trusting relationships amongst young people.

Regarding the Staffing domain, staff members recognised how diverse professionals working cohesively within a multidisciplinary team created the necessary environment to adequately ensure a beneficial emotional and behavioural experience for young people. Staff reported having clear and defined goals, clear systems and procedures, division of labour based on team members' roles, training for each professional, and various formal and non-formal meetings to communicate and discuss individual cases within the context of a multidisciplinary team which is consistent with a successful functioning team. These processes are consistent

with Grumbach and Bodenheimer's (2004) conceptualisation of five elements underlying successful team functioning and may explain the optimal team functioning as reported by diverse staff members. Consistent with these processes that encourage successful team functioning are establishing mutual trust among team members, open communication, maintaining equality among team members, and providing and receiving feedback (Firth-Cozens, 2001). Trusting relationships may be just as important amongst the diverse staff members as they are with the young people themselves. According to the staff, strong communication skills were vital for addressing the complex needs of youth in TRC. Effective therapeutic relationships require key communication skills from staff, including open and honest communication, consistent and trusting support, and cultural sensitivity (Ryan et al., 2021).

Regarding the Treatment domain, most staff highlighted group meetings as a critical aspect of treatment, where young people can have a meaningful voice and influence their healing journey and the daily operations of TRC. The collective perspective indicated that young people have high levels of participation, ranging from the daily running of the TRC to important decisions about their lives. Meaningful youth participation is crucial for building resilience and improving mental health outcomes in TRC, and this involves providing young people with opportunities for decision-making involving *meaning*, control, and connectedness (Oliver et al., 2006). Most staff members emphasised that the treatment was aligned with young people's individual needs (e.g., benefiting from specialised professionals, such as a psychiatrist and a psychologist) and that their independence skills are critical. Empirical evidence suggests that more often than not, young people leave institutions without the resources, support, or life skills needed for self-sufficiency (Colca & Colca, 1996; Van der Ploeg & Scholte, 2003). Furthermore, young people's departure from TRC is generally implemented without a support network that allows for a gradual and sustained transition to independent living (Geenen &

Powers, 2007). According to the staff perspective, achieving autonomy and being able to build and sustain trusting relationships may go hand-in-hand and are crucial for the long-term success of TRC. Person-centred approaches, such as therapeutic and life plans and individualised goal setting, might be beneficial to young people's progress in achieving individual goals (Kleinrahm et al., 2013).

Finally, concerning the Safety domain, staff viewed TRC as safe for young people and highlighted protective factors related to safety that encompassed various aspects of the care environment and staff characteristics. For example, the structure, stability and the 24hr presence of staff members helped maintain a structured environment that promoted the safety of young people. Young people in RC value stability and predictability as key factors contributing to their sense of safety (Moore et al., 2017). A structured environment with fair rules and some level of control over their surroundings helps create a sense of security for vulnerable individuals (Moore et al., 2017). The importance of structure is further emphasised by findings that high-level intensive RC programmes achieve the greatest placement stability, which is associated with better behavioural functioning (Sunseri, 2004). This stability is not only beneficial for young people's sense of safety but also for their overall well-being and treatment outcomes. These findings highlight the importance of a holistic approach to care that emphasises the development of supportive relationships and individual competencies (Arthur et al., 2002; Bettge & Ravens-Sieberer, 2003) and provides further support for the importance of the Milieu Factor domain.

Limitations and Directions for Future Research

Despite these valuable contributions, several limitations should be acknowledged. First, the interview script and sociodemographic questionnaire were not pre-tested with TRC staff before data collection, which may have introduced bias into the findings. Future research should include a pilot study to refine these tools, thereby enhancing their validity and reliability. Second, the sample consisted only of staff working in Portuguese TRCs for young people in the CPS, excluding facilities that served disabled youth or unaccompanied minors. Broader research involving a larger and more diverse sample across different types of TRC facilities could help refine the conceptual framework proposed by Farmer et al. (2017) and further validate its applicability across various Portuguese specialised settings. Finally, as this study was cross-sectional, it only captures perceptions and experiences at a single point in time. Longitudinal studies are needed to better understand how the factors in the framework interact and evolve over time.

In summary, this qualitative study revealed that staff members generally had positive views of delivering TRC. However, the collective focused primarily on risk factors and negative attributes when describing young people in their care, with little mention of youth protective factors which is consistent with findings in Portuguese RC (Calheiros et al., 2015). This suggests an opportunity to shift towards a more strengths-based approach to working with youth (Pinheiro et al., 2024b). Finally, the staff viewed their relationship with young people as critical to the success of treatment. Strengthening young people's connections with their peers and offering family support, where appropriate, may strengthen the Milieu Factor and improve youth outcomes in the long run.

Quantitative Empirical Study

The study is currently under review:

Castro, E., Magalhães, E., Costa, P., & Del Valle, J. F. (2025). Mental health profiles of females in therapeutic residential care: A two-step cluster analysis. *Journal of Child and Adolescent Trauma*.

Abstract

This preliminary exploratory study investigated the complex interplay between negative and positive mental health indicators and non-specific and specific treatment factors in Portuguese Therapeutic Residential Care (TRC). Twenty-five females aged 14-23 years (*M*= 16.56; *SD*=2.2) voluntarily participated in this study. Two-step cluster analysis using the log-likelihood measure was used to reveal natural groupings. Two distinct mental health profiles emerged: "Lower Psychopathology-Socially Vulnerable" (76.2%) and "Higher

Psychopathology-Cumulative Risk Profile" (23.8%). Psychopathology was the most significant predictor of cluster differentiation, followed by maltreatment history and the Milieu Factor (satisfaction with social network). Life satisfaction appeared positively associated with lower psychopathology, as evidenced by the higher satisfaction levels in the "Lower Psychopathology" cluster and the lower levels in the "Higher Psychopathology" cluster. The "Lower Psychopathology" cluster reported lower satisfaction with support networks despite better mental health outcomes. Conversely, the "High Mental Illness" cluster exhibited a significantly higher maltreatment history, suggesting that past trauma may contribute to current mental health challenges. These findings highlight the importance of moving beyond homogenous treatment approaches in TRC and adopting nuanced assessments that account for individual differences in TRC.

***Keywords**:* therapeutic residential care, dual-factor model, non-specific and specific treatment factors, two-step cluster analysis

Introduction

Young people in Therapeutic Residential Care (TRC) often present complex mental health profiles that require nuanced understanding and intervention (Castro et al., 2023, 2024). Gender differences may play a significant role in TRC experiences and outcomes, with females generally exhibiting more severe mental health issues, higher rates of reported sexual abuse, and more negative experiences and perceptions of TRC than their male counterparts (Castro et al., 2024, 2025; Stanley & Boel-Studt, 2019). Therefore, this exploratory study aimed to

investigate the complex interplay between positive and negative mental health indicators and non-specific and specific treatment factors among females in TRC in Portugal to identify distinct mental health profiles and inform tailored interventions.

Considering both positive (e.g., Satisfaction with Life [SWL]) and negative (e.g., psychopathology) mental health indicators when targeting support for young people in TRC may be especially important. This holistic approach allows for a more nuanced assessment of mental health, recognising that the absence of psychopathology does not necessarily equate to high levels of life satisfaction and vice versa (Magalhães, 2024). Positive youth outcomes are associated with interventions that effectively balance these dual aspects of mental health by alleviating negative symptoms while promoting personal strength and resilience (Barry et al., 2013). This balanced approach can potentially lead to better outcomes, promoting not only the absence of mental health problems but also the presence of positive mental health and well-being among young people in TRC settings (Magalhães, 2024). Addressing positive mental health can also reduce stigma and encourage young people to participate in mental health services more willingly, as it promotes a more normalised conversation about mental health (Corrigan & Watson, 2002).

These complex mental health outcomes can be influenced by both non-specific and specific treatment factors (Castro et al., 2023). Non-specific treatment factors refer to broader contextual elements that influence mental health outcomes (e.g., Duncan et al., 2010), such as a history of maltreatment or recent victimisation (Castro et al., 2023; Kolar et al., 2024; Rapsey et al., 2019). Non-specific factors are considered critical as they may account for a greater variance in treatment outcomes than specific treatment approaches (Chatoor & Kurpnick, 2001). The integration of non-specific treatment factors can improve the long-term effectiveness of TRC by promoting interpersonal skills and nurturing genuine therapeutic relationships with the youth (Harder, 2018). This perspective aligns with the Self-

Determination Theory, which suggests that focusing on individual needs and intrinsic motivations can yield more enduring behavioural changes (Harder, 2018).

For example, a meta-analysis conducted by Magalhães and Camilo (2023) showed that young people in care may experience significant mental health difficulties because of adverse experiences such as maltreatment. The results indicated significant overall effects of general maltreatment (r =.260), abuse (emotional/physical) (r = .135), and sexual abuse (r = .247) on internalising symptoms. Regarding externalising symptoms, the overall effects of abuse (emotional/physical) (r = .097) and sexual abuse (r = .187) were identified. Furthermore, a moderating effect of gender on externalising symptoms was found in studies with female samples, showing stronger effects than those with combined samples (males and females).

In addition to these adverse psychological outcomes, a history of child maltreatment is a significant risk factor for decreased SWL among young people in TRC, both through direct experiences and indirectly via psychological symptoms, such as feelings of worthlessness and loneliness. Emotional abuse and neglect were particularly influential and directly correlated with lower SWL. Such maltreatment experiences often have enduring effects that influence SWL even after treatment (Kolar et al., 2024). Furthermore, the effect of psychological maltreatment extends beyond immediate psychological distress, which affects the subjective well-being of emerging adults. Research indicates that psychological maltreatment significantly undermines life satisfaction through decreased self-esteem and self-compassion. These elements are central self-resources that are adversely affected by maltreatment and are pivotal to the long-term negative effects on subjective well-being (Wu et al., 2021). This suggests that targeting psychopathology and satisfaction with life may require a multifaceted approach that addresses both immediate mental health concerns (e.g., building resilience and coping mechanisms) and underlying trauma (e.g., healing past wounds). Additionally, gender-

specific strategies may be necessary, particularly when addressing externalising symptoms in female populations.

Another critical non-specific treatment factor is victimisation, which encompasses a broader spectrum of experiences in which young people are subjected to harm or adverse situations (Indias et al., 2019). As highlighted, young people who have experienced maltreatment often display internalising and externalising symptoms that can elevate the risk of further victimisation, including peer victimisation and sexual victimisation (Mitchell et al., 2020). An intricate path involves increased risk due to factors such as deviant peer associations and engaging in sex survival (Tyler et al., 2004). These interactions contribute to a consistent pattern of negative experiences, solidifying adverse outcomes in terms of broader psychological well-being, such as depression and suicidal ideation (Nurius et al., 2019).

In many cases, young females who face victimisation reported lower resilience resources, indicating that these adversities can significantly diminish their capacity to cope with stressors (Nurius et al., 2019). Research has also indicated that females may be particularly vulnerable to the negative mental health impacts of victimisation. For example, a meta-analysis examining peer victimisation during adolescence found that the risk of depression was more pronounced among females (Song et al., 2024). These findings underscore the importance of considering both maltreatment history and victimisation when assessing and treating mental health issues among females in TRC.

In contrast, specific treatment factors include specific actions and practices (e.g., treatment approach) (Hayes & Brunst, 2017) in TRC that promote healing. The Milieu Factor (Castro et al., 2024, 2025) and family contact (Griffith et al., 2009) may be particularly important and specific treatment factors that require careful consideration. The Milieu Factor focuses on young people's satisfaction with their support network (trusting relationships with

peers, staff, family, and the community) and was found to be critical to the success of TRC according to young people's perspectives (Castro et al., 2024, 2025).

Traditional conceptualisations of the therapeutic milieu in residential care often focus on the physical environment and organisational structure, prioritising safety and stability (Leipoldt et al., 2019). In contrast, an expanded perspective emphasises the psychosocial dimensions, viewing the milieu as a dynamic, relational construct built upon social connections, trust, and emotional safety. This paradigm shift highlights the importance of fostering meaningful interactions within a young person's broader social ecology and recognises the individual as embedded within interconnected systems essential for positive outcomes (Lopez et al., 2021).

However, a paradox exists in TRC settings. While designed to provide specialised support and treatment for individuals with emotional and behavioural issues (Castro et al., 2023), these settings can inadvertently restrict relationships. Separation from familiar environments, which inherently involves being away from family and social networks, can lead to feelings of punishment, abandonment, and difficulty forming new affective bonds (Babo et al., 2024; Geurts et al., 2012). Moreover, the dynamics within TRC can sometimes be polarising, undermining social capital and hindering the development of supportive peer relationships (Castro et al., 2025; Neale et al., 2018).The quality of youth-staff relationships has also been shown to play a crucial role in TRC (Duppong Hurley et al., 2017; Harder et al., 2013). However, achieving such quality relationships in residential care settings can be limited by various factors, including organisational dynamics, such as staff-to-resident ratios and the length of time staff members spend with residents (Duppong Hurley et al., 2017; Pinheiro et al., 2022). Fostering a therapeutic alliance, which is essential for positive behavioural and emotional outcomes, can be difficult if there is a lack of consistency in care or if staff members do not engage positively with residents (Duppong Hurley et al., 2017). This inconsistency can

hinder the development of trust, which is vital for residents to feel comfortable and supported. Finally, institutional practices and the structured nature of residential care, where routines and activities are often highly regulated, can further limit spontaneous interactions and the organic growth of relationships, as the environment tends to focus on behavioural management and structured therapy programmes inside TRC.

While TRC aims to provide a supportive environment for individuals in need, several inherent challenges and structural limitations can restrict the formation and quality of relationships within this setting (McPherson et al., 2024, 2025). Resilience resources available to young people, such as staff, peers, family, and the community, play a vital role in moderating the adverse effects of victimisation and maltreatment. These resources can help buffer against the negative effects of maltreatment and victimisation, although their effectiveness may vary based on the quality and nature of these relationships (Nurius et al., 2019). Crucially, such supportive relationships protect against the toxic effects of extreme stress on development by providing high-risk children with a safe space to recover and develop healthy stress response systems (National Scientific Council on the Developing Child, 2015).

Retrospective studies with adults have suggested that social support (e.g., trusted adult support and positive peer relationships) in childhood is associated with lower levels of mental illness in adulthood for those with and without childhood adversity (Hughes et al., 2018). When young people perceive high levels of social support, psychological difficulties decrease even when they experience lower levels of autonomy and contact with their families (Magalhães et al., 2020). Overall, the findings indicate that the Milieu Factor, that is, a strong support network, is vital for the holistic development of young people. Not only does it aid in the emotional and psychological healing process, but it also fosters a milieu conducive to growth and resilience, supporting young people in overcoming adversities beyond their time in TRC.

Furthermore, family contact plays a critical role in reinforcing the Milieu Factor within TRC, as maintaining trusting relationships with family members is associated with a shorter length of stay (Blankestein et al., 2022), better functioning during TRC (Grupper & Mero-Jaffe, 2008), and a more collaborative and cohesive environment within TRC, potentially leading to a more positive and supportive atmosphere for staff (Shalem & Attar-Schwartz, 2022). Indeed, family contact in TRC can enhance staff's ability to provide more effective care. By fostering open communication and collaboration between staff and families, TRC facilities can develop a deeper understanding of an individual´s needs, preferences, and background, leading to more personalised treatment plans and improved outcomes (Shalem & Attar-Schwartz, 2022).

Building on this, family contact, particularly home visits, may be an important component for the long-term success of TRC (Harder, 2018). By bridging the gap between TRC and the home environment, visits can help maintain motivation and stability in the treatment of young people (Castro et al., 2024, 2025). This linkage supports smoother transitions between care settings and home, which is critical for long-term success (Harder, 2018). It is hypothesised that youth can, too often, regress in the community because the environment they enter post-discharge (i.e., home, neighbourhood, community) remains unchanged (Leichtman & Leichtman, 2001). Additionally, families frequently have not had intervention or targeted skill-building focused on the home environment while their child was in TRC (Herbell & Breitenstein, 2021). Skill development is difficult to practice and generalise when the primary practice method is through families visiting a highly structured TRC environment. When youth do not have the opportunity to go home, their families are deprived of the opportunity to bond with their children and practice the skills they are learning in TRC (Herbell et al., 2025).

The Current Study

Females in TRC may face unique challenges or exhibit different behavioural patterns than their male counterparts, which can be more clearly delineated through a carefully conducted cluster analysis (Hagaman et al., 2010). Research emphasises the importance of recognising the heterogeneity among females in TRC (Castro et al., 2023; Handwerk et al., 2006) and moving beyond gender comparisons to focus on the distinct rehabilitation needs of each gender. A nuanced understanding of these gender differences can help tailor programmes to meet individual needs more effectively (Lanctôt, 2018).

A two-step cluster analysis can be a powerful tool in this process, allowing the identification of distinct subgroups (Newcomer et al., 2011), such as within the female population, based on shared characteristics or treatment requirements. This approach enables healthcare providers and policymakers to move beyond one-size-fits-all solutions and to create more targeted, personalised care strategies that address the specific needs of each subgroup (Lanctôt, 2018). By focusing exclusively on females, this analytical approach can directly address gender-specific issues that might otherwise be overlooked in mixed-gender studies (Saeidzadeh, 2023).

Furthermore, a two-step cluster analysis is particularly effective in scenarios with limited prior information about potential subgroups, as it explores natural groupings in the data without preconceived biases (Tkaczynski, 2017). When applied to TRC populations, this exploratory and unbiased approach can provide new insights into the underlying factors affecting treatment outcomes, offering a pathway to optimise care plans and resource allocation. By focusing on females in TRC, this study addresses a gap in the literature and contributes to the development of gender-responsive care strategies in TRC by conducting a two-step cluster analysis to investigate the complex interplay between positive and negative

mental health indicators and non-specific and specific treatment factors among females in TRC in Portugal.

Method

Participants and Settings

All eligible young people from seven existing Portuguese TRC facilities, targeting those with severe emotional and behavioural problems (excluding those with disabilities or unaccompanied minors), were initially invited to participate. Four facilities exclusively serving males were unavailable during data collection. Consequently, the study focused on females residing in three private, non-profit TRC facilities. Two TRC facilities were in a rural setting, and one was located in an urban setting.

A sample of 25 females voluntarily participated in this study. They were aged 14-23 years (M= 16.56; SD = 2.2) and were mostly Portuguese (n= 20; 80%). A total of 32% of young people had a disability (e.g., intellectual disability, cognitive delay), and regarding their education, most young people were accessing the national curriculum (n= 18;72%), and had more than one repeated school year (n= 16; 64%). Most young people had a history of emotional neglect (n= 17; 68%), followed by physical neglect (n= 10; 40%), physical abuse (n= 7; 28%), emotional abuse (n= 5; 20%), and sexual abuse (n= 5; 20%). Most young people had entered TRC up to a year before the point of data collection (n= 12; 48%), and all young people were referred to TRC due to serious behavioural issues. The main reasons for their protection were parental incapacity to establish boundaries (n= 20; 80%), maltreatment (n= 10; 40%), and parental incapacity to fulfil obligations (n= 9; 36%). All young people had a history of residential placements and an intervention plan in which the primary objective for over half was family reunification (n= 12; 52.2%). Most of the young people had regular family visits (n= 10; 40%). As participants were excluded if their responses contained >80% missing data or invalid responses (n= 4), 21 female responses were analysed

All three facilities implemented a treatment model characterised by a strong cognitive-behavioural component and incorporated a token-economy system. Each young individual had access to a psychiatrist biweekly, participated in weekly individual and group therapy sessions, engaged in weekly psychoeducation and independence groups, attended daily community reunions, and participated in weekly assemblies. Each TRC facility was composed of a director (a social worker or psychologist responsible for coordinating the care worker team and overseeing the TRC facility), care worker team (a social worker or psychologist tasked with developing a case plan for each child or youth), caregiver team (responsible for supporting the daily routines of young people in the TRC), general service team, psychiatrist, psychologist, and on-site teachers (Castro et al., 2025). All the staff members received external and regular supervision and adhered to a predefined training schedule for all staff members.

Measures

Demographics

Sociodemographic Questionnaire. The staff completed a Portuguese sociodemographic questionnaire specifically developed for this study that aimed to capture the essential characteristics of young people. This sociodemographic questionnaire was not pretested with TRC staff before data collection. The questionnaire comprised both open-ended and multiple-choice questions (using a binary response option [1= *yes*, 0= *no*]), addressing variables, such as gender (male or female), age (years), nationality, disability status (without disability, physical incapacity, intellectual disability sensory disability), duration of stay (in months), reasons for child protection (maltreatment [any kind], inability of the parents to carry out parental obligations [imprisonment of the parents, orphan], abandonment/renunciation [only in case of renunciation of the newborn, or in cases of total abandonment in which the other parents completely ignore the child], parental incapacity to establish boundaries [refers

to cases where parents are not able to control and set limits for their children], violence against parents by the child, and other [please specify]), reasons for admission in TRC (serious behavioural problems, serious mental health problems, runaway, parental violence, criminal conduct and other [please specify]) and objective of intervention plan (family reunification, permanent separation and placement in a new family [adoption],emancipation/independence/autonomy and other [please specify]).

Mental Health Outcomes

Child Behaviour Checklist. The staff completed the CBCL using the Portuguese version obtained from the ASEBA catalogue for young people aged 11-18 (Achenbach et al., 2014) or the Adult Behaviour Checklist (ABCL) obtained from the ASEBA catalogue for young people aged 18-25 years (Achenbach & Rescorla, 2003; Caldas, 2010). This behaviour checklist screens for emotional and behavioural problems over the last six months through 113 items of structured questions using a *Likert* scale in which staff selected one of three options when answering each item (0 = *not true*, 1= *sometimes true*, and 2= *true or mostly true*). These 113 items are associated with problems on a syndrome scale in eight different categories: anxiety/depression, withdrawn/depression, somatic complaints, social problems, thought problems, attention problems, rule-breaking behaviour, and aggressive behaviour. Overall, behavioural and emotional functioning is measured by the total problem score and includes first-order scales that have been empirically validated or DSM-V (American Psychiatric Association, 2013) - oriented scales and second-order scales such as internalising and externalising symptoms. A total score acquired by summing all questions reflecting internalising and externalising symptoms was used in this study, without distinguishing each domain. Higher total scores indicated more symptoms. This study found an excellent internal

reliability (α = 0.97), which aligns closely with the reported global alpha in the Portuguese version (α = 0.96) (Achenbach et al., 2014).

Satisfaction with Life Scale. Young individuals completed the Portuguese version of the SWLS (Diener et al., 1985; Neto, 1993), which was designed to assess global cognitive evaluations of life satisfaction. This instrument consists of five positively worded items (e.g., *In most ways, my life is close to my ideal*) answered on a seven-point Likert scale ranging from strongly agree to strongly disagree. The total scores ranged from 5 to 35. Higher total scores reflect greater satisfaction with life. Satisfactory internal reliability was found in the Portuguese version (α= 0.78) (Neto, 1993), and good internal reliability was found in this study (α= 0.86).

Non-specific Treatment Factors

Juvenile Victimisation Questionnaire – 2nd Revision (JVQ-R2 – Screening Sum Version, Youth Past-Year Form). The Portuguese version of the JVQ-R2 (Urbano et al., 2025) was completed by young people to assess their self-reported experiences of recent victimisation (within the last year). It includes 34 items across five domains (Conventional Crime, Maltreatment, Peer and Sibling Victimisation, Sexual Victimisation and Witnessing and Other Exposure to Violence) using a binary response option (1= *yes*, 0= *no*). The total score acquired by summing all questions reflecting victimisation experiences was used without distinguishing between domains. Higher total scores indicated greater experiences of victimisation. Good internal reliability was observed in this study (α =0.83).

Maltreatment History. Staff members were asked to indicate the types of maltreatment the young person had suffered, selecting from seven response categories (physical abuse, physical negligence, emotional abuse, emotional negligence, sexual abuse, sexual exploration, and others), and to report on each form of maltreatment using a binary response option (1= *yes*, 0= *no*).

Specific Treatment Factors

Family Contact. Staff were asked about the level of family contact the young person had with five possible responses (0= *no contact*, 1= *only visitation*, 2= *outings to the family home on bank holidays and weekends*, 3= *visitation and outings to the family home*, and 1= *contact such as phone or email*). Two points were attributed to 'outings to the family home', reflecting a substantial form of family contact. The total score was calculated by summing all the response options for the different contact forms. Higher total scores indicate greater contact with family members.

Milieu Factor. Drawing upon previous research findings (Castro et al., 2024, 2025), the Milieu Factor (i.e., trusting relationships with peers, staff, family, and the community) was identified as a pivotal domain influencing young people's perceptions and experiences of quality in TRC. To assess this crucial aspect, a measure focusing on the Milieu Factor was developed to capture young people's satisfaction with their support network and the relationships that were most important to them. This questionnaire consisted of seven items with 11 response options on a *Likert* scale ranging from unsatisfied to satisfied, with a total score ranging from 0 to 70. Young people were asked to focus on their current situation and relationships and to assess the extent to which they were satisfied with family contact, relationships inside the TRC, relationships outside the TRC, their relationship with staff, the support they received, access to their mobile phones, and access to the community. Higher total scores indicated greater satisfaction with their support network, providing valuable insights into the quality of care from the perspective of young people. Cronbach's alpha ($\alpha = 0.78$) indicated acceptable internal reliability.

Data Collection and Statistical Analysis

This study was approved by the university's ethics committee (Ref: 62/2024). Informed consent was obtained from the legal representatives of the participants aged < 18 years before their involvement in the study. The participants were thoroughly briefed on the nature of the study so they could make an informed decision whether to participate. They were also informed that their participation was voluntary and confidential, with their personal data being processed solely for this study and contingent on informed consent. The boundaries of confidentiality were clearly communicated to each participant, which was particularly crucial given the sensitive nature of the topic and the vulnerability of the young participants. Data protection was rigorously maintained throughout the study in accordance with Act 3/2018 on Personal Data Protection and Guarantee of Digital Rights, and in Portugal, in compliance with Law 58/2019, dated 8 August, concerning Personal Data Protection.

Data was collected at a single point in time from each participant and anonymised at the point of data collection. This involved assigning numbers and letters at random (e.g., x6hs4) to each participant with no relation to the participant or facility, thus ensuring that the participant's identity remained anonymous. The anonymised data on young people's mental health outcomes and non-specific and specific treatment factors were stored on a SharePoint with restrictive access to the research team.

To classify females in TRC according to their total psychopathology and SWL scores, the data were standardised into z-scores and analysed using IBM SPSS Statistics (Version 30) predictive analytics software, and a two-step cluster analysis using the log-likelihood measure was executed, considering both variables together, alongside the evaluation variables (non-specific and specific treatment factors). Unlike traditional clustering methods, which often require a priori specification of the number of clusters, the two-step clustering procedure automatically identifies the most suitable number of clusters, making it especially advantageous when working with limited data (Pitafi et al., 2023).

To identify the optimal number of clusters and maximise both within-cluster similarity and between-cluster variability, we assessed the average silhouette measure of cohesion and separation. Kaufman and Rousseeuw (1990) recommend an interpretation for the silhouette scores with scores above 0.70 considered to be strong, between 0.51 and 0.70 reasonable, between 0.26 and 0.50 relatively weak, and anything below 0.25 is viewed as incorrect. In an exploratory approach, and informed by the dual-factor model, which can conceptually result in four profiles (Magalhães & Calheiros, 2017), the ratio of cluster sizes was permitted to be up to four. We then selected the largest proportion change in the Akaike Information Criterion (AIC) measure of fit. AIC tends to perform better with smaller sample sizes because it applies a smaller penalty for model complexity compared to Bayesian Information Criterion (BIC), which more heavily penalises based on the sample size logarithm (Lin et al., 2017). Following the parsimony criterion, the best clustering solution was the one that achieved the optimal balance between the number of clusters and the corresponding fit.

Results

Cluster Analysis Based on Negative and Positive Mental Health

Based on the evaluation of the AIC, AIC change, and the ratio of AIC changes, the optimal number of clusters appeared to be two. This solution yielded the lowest AIC (33.38) and the most substantial reduction in AIC from the preceding solution, indicated by the largest negative change in AIC (-2.72). Although the ratio of distance measures peaked at three clusters, this was not supported by further AIC improvement, suggesting that additional clusters may not offer meaningful gains in model quality and could indicate overfitting. Therefore, the two-cluster solution was selected as the most parsimonious and robust solution.

Two-step cluster analysis resulted in two mental health profiles with a silhouette coefficient of 0.60, indicating reasonable cluster quality but with some room for improvement.

The heterogeneity of the included variables, encompassing both psychopathology and SWL, may contribute to the low silhouette coefficient, as these constructs may not align neatly into distinct clusters within this sample. However, despite this limitation, the identified profiles may still offer preliminary insights into the distinct mental health characteristics of females in TRC.

The analysis identified several predictors that contributed to the formation of these clusters, with varying degrees of importance. Psychopathology emerged as the most crucial predictor with an importance value of 1.00, indicating its significant role in differentiating between the two mental health profiles. Following psychopathology, maltreatment history (0.22) and Milieu Factor (0.15) were identified as the next most important predictors in the model. The analysis also revealed that recent victimisation (0.12), family contact (0.11), and SWL (0.09) had relatively lower importance values for determining cluster membership.

Table 10 shows the means and standard deviations for the two identified clusters on measures of psychopathology, SWL, and non-specific and specific treatment factors. Examination of the cluster centroids revealed distinct profiles. Cluster 1 (n= 16, 76.2%) was labelled "Lower Psychopathology" to reflect its characteristically lower mean scores of psychopathology (M= 21.19, SD= 9.33) and a higher mean score for satisfaction with life (M= 21.69, SD= 7.59). Cluster 2 (n= 5, 23.8%) was labelled "Higher Psychopathology" to reflect its characteristically higher mean scores of psychopathology (M= 65.00, SD= 14.95) and a lower mean score of satisfaction with life (M= 16.36, SD= 5.10).

Table 10

Cluster Means and Standard Deviations for Psychopathology and Well-being and Non-specific and Specific Treatment Factors

Cluster	**Cluster 1 – Lower Psychopathology (*n*= 16, 76.2%)**	**Cluster 2 – Higher Psychopathology (*n*= 5, 23.8%)**
Psychopathology (M ± SD)	21.19 ± 9.33	65.00 ± 14.95
SWL (M ± SD)	21.69 ± 7.59	16.36 ± 5.10
Maltreatment (M ± SD)	1.58 ± 0.90	3.50 ± 1.29
Victimisation (M ± SD)	6.43 ± 3.25	12.60 ± 7.13
Milieu Factor (M ± SD)	39.60 ± 10.07	49.00 ± 18.97
Family Contact (M ± SD)	2.18 ± 1.40	1.00 ± 1.73
Interpretative Label	Lower Psychopathology – Socially Vulnerable	Higher Psychopathology – Cumulative Risk Profile

Specific and Non-specific Treatment and Demographic Predictors

The examination of the cluster centroids indicated that Cluster 1 was characterised by a lower maltreatment history (*M*= 1.58, *SD*= 0.90), lower recent victimisation (*M*= 6.43, *SD*=3.25), lower Milieu Factor (*M*= 39.6, *SD*= 10.07), and higher family contact (*M*= 2.18, *SD*= 1.40). Based on both mental health and non-specific and specific treatment factors, this cluster was labelled "Low Psychopathology-Socially Vulnerable". Cluster 2 was characterised by higher maltreatment (*M*= 3.5, *SD*=1.29), higher victimisation (*M*= 12.6, *SD*= 7.13), higher Milieu factor (*M*=49, *SD*=18.97), and lower family contact (*M*= 1, *SD*= 1.73) and was labelled "High Psychopathology–Cumulative Risk Profile".

Discussion

This preliminary and exploratory study aimed to investigate the complex interplay between positive and negative mental health indicators, non-specific treatment factors, and specific treatment factors among females in Portuguese TRC. Despite the low silhouette score and small sample size (5 participants), particularly in Cluster 2, the analysis provided initial evidence of potentially distinct mental health profiles within this relatively understudied population of young females in Portugal's TRC system. Therefore, given the limitations, a cautious approach to interpreting these findings is necessary.

This research moved beyond the notion of treating all young people in TRC as a homogenous group. However, the low silhouette score highlighted that some young people may not neatly fit into the identified clusters. This heterogeneity has important implications for clinical practice and intervention planning and highlights the necessity for tailored assessments to identify each individual's specific trauma history, coping capacity, and social support networks. Tailored interventions that consider the wide spectrum of experiences as demonstrated in this study are likely to be more effective in promoting recovery and resilience (Martín et al., 2017).

A two-step cluster analysis revealed two distinct mental health profiles with different characteristics and prevalence rates. The analysis highlighted maltreatment history as the most significant factor influencing psychopathology, outperforming other variables such as the Milieu Factor, recent victimisation, and family contact in its impact. Indeed, a large body of evidence has demonstrated that exposure to childhood maltreatment at any stage of development can have long-lasting consequences, influencing various aspects of mental and physical health and severely affecting individuals' trajectories and well-being (Bürgin et al., 2025; Castro et al., 2023; Lippard & Nemeroff, 2020; Magalhães et al., 2023). This underscores maltreatment's dominant role in distinguishing between different mental health profiles.

Furthermore, the study's cluster analysis further supports this, revealing that the "Higher Psychopathology-Cumulative Risk Profile" Cluster is significantly characterised by higher levels of maltreatment, solidifying its role in identifying a more vulnerable population. While the other factors do vary between clusters, their impact is less pronounced and appeared to be intertwined with the effects of maltreatment. Even when the "Higher Psychopathology" Cluster reports greater satisfaction with their support networks, their overall mental health remains poor, suggesting social support alone cannot fully counteract the deep-rooted consequences of past maltreatment (Salazar et al., 2011).

Similarly, the impact of recent victimisation can be compounded by the vulnerabilities established by earlier maltreatment (Ahn et al., 2022). This cycle is often worsened by institutional responses that may lack trauma-informed approaches, leading to feelings of shame, helplessness, and normalisation of violence (Paterson-Young et al., 2024). Furthermore, the effects of family contact are contingent on the quality of those relationships (Castro et al., 2024). If maltreatment occurred within the family system, increased contact may be detrimental rather than beneficial. Studies suggest that maltreated youth in foster care and residential settings who maintain contact with their abusive family members might experience continued trauma, leading to increased mental health challenges such as anxiety, depression, or post-traumatic stress disorder (Bürgin et al., 2025). Therefore, it is crucial to assess the individual circumstances of each young person and tailor interventions to their unique needs, considering the potential harm continuous family contact might pose.

These findings suggested that while the Milieu Factor, recent victimisation, and family contact are undoubtedly relevant considerations, maltreatment history functions as a more foundational influence, establishing the groundwork for many of the mental health challenges these young females experience. Its direct and far-reaching impact on both psychopathology and overall well-being positions it as the most robust predictor within this model.

The larger Cluster “Lower Psychopathology-Socially Vulnerable”, comprised of 16 young people with the most positive mental health outcomes. On average, these females exhibited lower levels of psychopathology and higher SWL than those in the “Higher Psychopathology- Cumulative Risk Profile”. Another key characteristic of this cluster was the lower number of subtypes of maltreatment and victimisation, suggesting that these individuals experienced less trauma and abuse or neglect over time, which may explain their better overall mental health. In contrast, the Milieu Factor was found to be a significant predictor, but with notably lower mean scores of satisfaction with their support networks. This suggests that despite experiencing better clinical outcomes, these individuals might lack the essential social support or Milieu Factors necessary for long-term satisfaction and psychological well-being (James et al., 2007). This underscores the importance of strengthening social support systems in TRC to improve satisfaction, even when clinical symptoms are less pronounced (Castro et al., 2024, 2025). Although this group may experience less psychopathology, they may miss out on the benefits of strong social connections. This could potentially create a situation in which they are more vulnerable to future challenges or are less equipped to cope with stress.

This Cluster also demonstrated higher family contact. Family contact and youth outcomes are multifaceted and not necessarily straightforward. While intuitively one might expect increased family contact to lead to better outcomes for youth, the current findings indicate that this is not always the case. In fact, Huefner et al. (2015) and Sunseri (2004) suggest that simply having more contact between the youth and their families does not automatically result in better relationships or outcomes. The quality of family interactions and management of family dynamics are crucial elements. Effective family functioning goes beyond mere contact; it involves treating the family as a whole and ensuring quality interactions, which are pivotal for positive outcomes (Sunseri, 2004, 2020). Therefore, it cannot be assumed that youth who have more contact and home visits with their parents also have better relationships (Tang

et al., 2024). The overall profile of the larger Cluster “Lower Psychopathology-Socially Vulnerable” paints a picture of young people with lower psychopathology who may be struggling with unmet needs related to social support, or the type of support does not address their concerns. Critical to the success of any TRC intervention is understanding the practices that might potentially interrupt the trajectory toward isolation, poor social connections, and fractured trust, as well as the policies that frame and support these practices and related conditions (McPherson et al., 2024), and may be especially important for this Cluster.

On the surface, it might seem that having a larger group with lower psychopathology indicates the interventions are working. However, based on the nuances of this study, a more complex picture is painted. The fact that a larger group has lower levels of psychopathology suggests the interventions might be successful in alleviating some of the more overt psychological symptoms (like anxiety, depression, behavioural issues) for a larger portion of the females. However, the “Lower Psychopathology” group was also “Socially Vulnerable”. This suggested that while interventions might be reducing clinical symptoms, fostering strong social connections, resilience, or overall well-being is also critical for youth in TRC.

Moreover, the study's caution against equating increased family contact with improved outcomes further complicates the picture, emphasising the critical importance of relationship quality. It may be the case that these females, although experiencing lower severity and psychopathology, require different intervention and care. The distribution of the sample into these two groups highlights the need for interventions that consider a holistic view. Interventions need to address trauma, build social skills and support networks, improve the quality of family relationships, and empower individuals.

The smaller, yet significant group, “Higher Psychopathology-Cumulative Risk Profile”, comprised of only 23.8% of young people stands out because of its concerning mental health profiles. Individuals in this group exhibited the most severe symptoms and, on average,

had lower SWL, indicating their vulnerability. A key distinguishing factor for this Cluster is the significantly higher prevalence of maltreatment history among its members compared to the "Lower Psychopathology-Socially Vulnerable" Cluster. This finding suggests that past traumatic experiences may contribute to current mental health difficulties. As previously highlighted, this suggests that maltreatment experienced during childhood exacerbates current psychological difficulties, aligning with findings that maltreatment has profound effects on both internalising and externalising disorders (Castro et al., 2023; Schlensog-Schuster et al., 2024).

Conversely, these young people reported higher scores on the Milieu Factor, indicating greater satisfaction with their support networks and overall social environment. This combination of factors-a history of maltreatment, satisfaction with their social support network, and poor mental health outcomes-paints a picture of a vulnerable group that may require targeted trauma-informed interventions that target the deep-rooted effects of maltreatment (Greger et al., 2016). Although individuals feel supported and perceive their support systems as helpful, they still experience significant mental health challenges and distress. This could mean that the support system is helpful but does not address the root causes of their psychopathology. Applying trauma-informed design principles to TRC facilities may reduce retraumatisation and promote resiliency among females in care (Ames & Loebach, 2023).

Chronic maltreatment leads to multifaceted mental health issues that tend to be more persistent, severe, and complex, especially when the severity is high (Bürgin et al., 2025). Addressing these deep-seated issues requires focused, trauma-informed interventions that go beyond addressing isolated victimisation incidents and instead target the underlying causes rooted in maltreatment. Such a comprehensive approach is vital for improving therapeutic outcomes and ensuring that youth within this heterogeneous, higher-risk cluster receive the tailored support necessary to foster resilience and recovery.

Limitations and Future Research

This study serves as a preliminary and exploratory study to gather initial insights into the profiles of females in TRC. Alongside the limitations already highlighted (e.g., low silhouette coefficient) several additional limitations warrant careful consideration. First, this study was based only on the perspective of females in TRC. Expanding the scope of this study to include male participants would provide a more comprehensive understanding of their mental health profiles. By comparing the experiences of both females and males, researchers can identify potential gender-specific risk factors, protective factors, and treatment needs. This broader perspective would enable TRC providers to tailor interventions more effectively to address the unique challenges faced by each gender. These insights can inform the development of gender-sensitive assessment tools, treatment approaches, and support systems. Additionally, exploring potential differences in social support networks and responses to various therapeutic interventions between males and females could lead to more nuanced and effective care strategies, ultimately improving outcomes for all youth in TRC settings.

Second, the Milieu Factor was measured using a validated measure. However, as this study was exploratory in nature, the Milieu Factor (e.g., trusting relationships with staff, peers, family, and the community) lacked established measures for young people in the Portuguese TRC context. Furthermore, the limited sample size, particularly in the "Higher Mental Psychopathology" Cluster, poses significant challenges. This small subgroup may not adequately represent the broader population of individuals with high levels of mental illness, potentially leading to skewed results or overlooking important variations within this demographic group. To address this limitation, future research should prioritise the recruitment of larger and more diverse samples. Increased sample sizes would enhance the statistical power, allowing for more robust analyses and potentially uncovering subtle relationships that may have been missed in the present study. Additionally, a more diverse sample would improve the

representativeness of the findings, making them applicable to a wider range of populations and contexts in the future.

The cross-sectional nature of the study design presents another significant limitation as it precludes the ability to draw causal inferences from the observed relationships. Although the associations between variables can be identified, the direction of these relationships and their potential changes over time remain unclear. Longitudinal studies are needed to overcome this limitation. Such studies would allow researchers to track participants over extended periods, enabling observation of how various factors interact and evolve over time. This approach could provide valuable insights into the temporal dynamics of the relationships under investigation, potentially revealing causal mechanisms and offering a more comprehensive understanding of the complex interplay between mental health factors and other variables of interest.

In sum, by adopting a comprehensive approach that incorporates psychological symptom management, specific treatment techniques, and attention to the Milieu Factor, clinicians can offer more effective and holistic care. This multifaceted strategy aims to not only alleviate immediate symptoms but also foster long-term recovery and build resilience in young people. Such an approach recognises the complex interplay between psychological, social, and environmental factors in the treatment of TRC and maltreatment-related issues, potentially leading to more sustainable outcomes and improved quality of life for affected young people. In conclusion, this exploratory study makes a valuable contribution to the literature and provides a foundation for future research in this area. By addressing the limitations and building on the strengths, researchers can gain a more comprehensive understanding of how to improve TRC for young people.

SECTION C.

CONCLUDING REMARKS

The "Black Box" and Paradigm Shift Focus

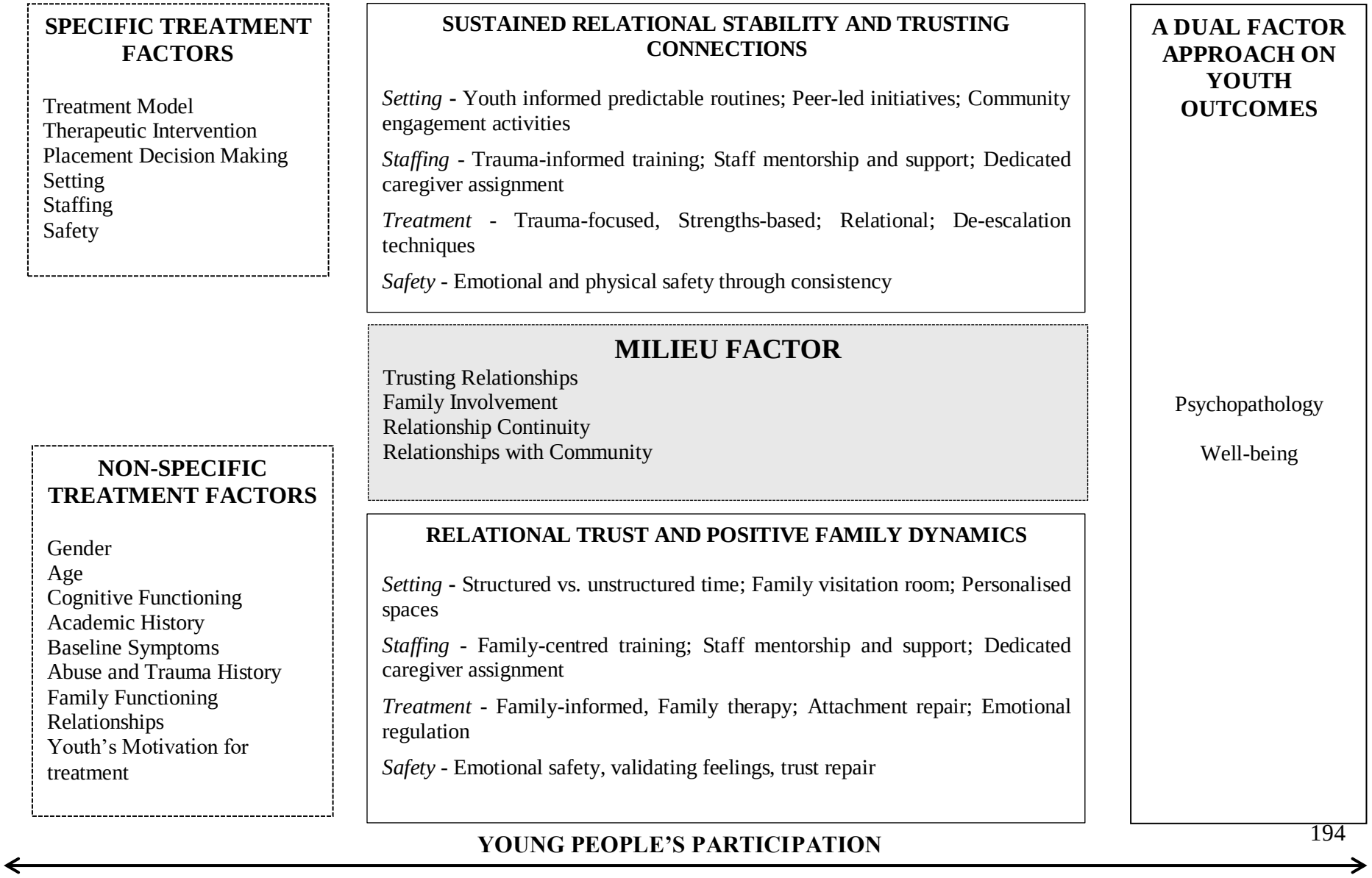
Centred on the inquiry *"What critical factors underpin the success of TRC?"*, this work culminated in the development of five interconnected studies. This thesis concludes that the black box of TRC can only be uncovered by moving beyond traditional, adult-centric models of symptom reduction. While this research began with a conventional focus on internalising and externalising symptoms, the findings across five interconnected studies necessitate a fundamental shift toward a dual-factor model of mental health.

The most significant original contribution of this research is the conceptualisation of the Milieu Factor driven by what young people view as most important. By evolving Farmer et al.'s (2017) structural pillars (Setting, Staffing, Treatment, and Safety) through a bottom-up approach, this thesis identifies that the active ingredient of TRC is the relational ecology of the care environment. The findings suggest that trusting relationships, not only with staff but crucially with peers and the connection to the family and world outside, are the primary drivers of sustainable recovery. The Milieu Factor bridges the gap between the internal clinical setting and the young person's broader social world, transforming structural adequacy into therapeutic synergy.

This research culminates in the first comprehensive, youth-friendly framework for TRC in Portugal. By elevating the voices of the primary recipients of care, this work challenges the historical top-down, positivist paradigm that has dominated the field. For policymakers and practitioners, the implications are clear: the quality of TRC must be appraised through the subjective lived experiences of the youth. Moving forward, the implementation of TRC in Portugal must transition from a model of risk management to one of therapeutic co-construction, ensuring that interventions are tailored to the unique profiles and strengths of vulnerable young people.

Figure 4

A Youth-Friendly Framework for Achieving Positive Outcomes in Therapeutic Residential Care



A Blueprint for Therapeutic Synergy

The Integrative Framework: Beyond the Black Box

Figure 4 introduces a framework moving beyond traditional symptom-focused models to embrace a holistic and interconnected approach, recognising that negative and positive outcomes are shaped by the dynamic interplay of several core components. This framework integrated the central conceptual frameworks adopted in this thesis, the dual-factor model of mental health, non-specific and specific treatment factors, and Farmer et al.'s (2017) four-pronged conceptualisation and key findings across five interconnected studies to provide a robust blueprint for achieving positive outcomes in TRC. Crucially, the active participation of young people allows the model and practices to continue evolving, based on the youth's participation and changing mental state. This integrative framework emphasises the intricate interplay of these factors, highlighting the paramount importance of a holistic, systemic, person-centred, individualised, and sustainable approach to care. This offers TRC providers a practical and actionable guide to deliver evidence-informed interventions, foster genuine connections, and empower vulnerable young people to achieve meaningful and sustainable positive change in their lives.

Shifting the Paradigm: From Deficit-Reduction to Dual-Factor Wellness

Central to this framework is the understanding that positive outcomes extend beyond simply alleviating negative symptoms; they encompass fostering overall well-being and proactively building upon existing strengths (Magalhães, 2024). Traditionally, mental health support has primarily focused on reducing negative symptoms such as internalising and externalising symptoms (Castro et al., 2023). However, a sole emphasis on alleviating mental health problems can overlook the strengths, virtues, and positive attributes that contribute significantly contribute to a young person's overall well-being (Gautam et al., 2024).

Indeed, the dual-factor model of mental health recognises that mental health is not merely the absence of distress but also the presence of positive qualities such as satisfaction with life, resilience, and social connectedness (Magalhães, 2024). This provides valuable insights into how young people perceive their overall quality of life, including their sense of fulfillment, purpose, and happiness. This holistic perspective helps care providers to identify areas for growth beyond symptom reduction, fostering a more comprehensive approach to well-being.

By assessing both negative and positive symptoms, care providers can develop more personalised, and effective interventions that address young people's specific needs while also capitalising on existing strengths and resources. A strengths-based approach within TRC is vital because it aims to nurture and enhance the inherent abilities of young people, fostering resilience, confidence, and self-efficacy (Zimmerman, 2013). This approach contrasts sharply with traditional problem-focused models, which tend to emphasise deficits and disorders. As observed in Study 4, staff members often lean towards this conventional, deficit-oriented approach. However, as highlighted by the young people themselves in Study 3, building on their strengths is crucial for effectively addressing the challenges they face (Elsen & Ord, 2023).

Opening the "Black Box": The Milieu as a Systemic Buffer

At the heart of this framework lies the Milieu Factor, a systemic force, that represents a set of protective buffers essential for mitigating risks, promoting emotional well-being, fostering resilience, and supporting sustainable outcomes. The Milieu Factor respresents a bottom-up paradigm shift in service development, prioritising youth perspectives and internal and external relationships over traditional, top-down, professional-driven models. This approach driven by young people, emphasises that successful TRC must extend beyond the facility to foster connections with a young person's broader, organic, social ecology.

Rather than focusing solely on individual interventions or relationships within TRC, this approach considers the entire environmental context, the collective milieu as an influential element. It underscores the significance of continuity and trust within various interactions, not only those within the therapeutic or caregiving setting but also in the external social environment, and recognises that these multidimensional influences can profoundly shape outcomes. By emphasising the Milieu Factor, professionals can design more comprehensive youth-friendly strategies that address the systemic and relational aspects of care that are most important to young people, rather than isolated focus areas.

The Milieu Factor was identified by young people in Study 2 as an additional foundational domain beyond the four originally proposed by Farmer et al. (2017). This broader perspective acknowledges that external influences are not merely background elements but also active, systemic forces shaping young people's lived experiences and outcomes. Consequently, the milieu is redefined as a relational construct fundamentally linked to social connections, trust, and emotional safety within and beyond the gates of TRC. This shifts the focus from internal stability alone to a comprehensive social integration model.

Collectively, the findings show that relationship continuity within TRC provides a secure base from which young people can explore and rebuild trust with external social systems. Consistent with this, positive relationships with staff and caregivers serve as models for healthy relationships with peers and external relationships, easing transitions and fostering trust outside the facility as highlighted by Studies 3 and 4. Re-engaging with the family and community through sustained, ongoing relationships helps repair past ruptures, supports reintegration, and promotes holistic healing (McNamara, 2020). While staff members placed greater emphasis on their relationship with young people as critical to the success of treatment, in Study 4, in Study 3 young people placed greater emphasis on their connection with the community, peers, and their family. This discrepancy and emphasis on community, peer, and

family connections highlights the importance of a holistic approach to treatment that extends beyond the immediate care environment.

Furthermore, in Study 5, the two-step cluster analysis further emphasised the significance of the Milieu Factor, revealing it as the third most important predictor in differentiating mental health profiles among females in TRC. Notably, the analysis showed that the majority of females in TRC were at risk of social isolation. This broader perspective aligns with the understanding that lasting change requires support systems and positive relationships outside of the treatment facility. By fostering a supportive and inclusive atmosphere, services with a strong Milieu Factor can create a more comprehensive and effective treatment experience that addresses the multifaceted needs of young people and potentially target and disrupt patterns of isolation and improve long-term success.

The collective evidence from this thesis, supported by evidence in residential settings indicates that trusting relationships are not merely a component of care but the very foundation of safety and security (Calheiros et al., 2020; Izzo et al., 2022; McPherson et al., 2019; Whittaker et al., 2023). Moving forward, TRC success should be measured by the density and quality of the young person's internal and external social network. Social networks serve as vital life-long resources that buffer stress and facilitate coping (Holt-Lunstad et al., 2025).

Brito and Koller (1999) emphasised the importance of meaningful connections, roles, and social links in emotional and social development, providing resources essential for well-being. This is supported by recent studies showing that social support networks, such as family, peers, and community improve mental health and resilience, particularly in vulnerable populations (Haugstvedt, 2022). Haugstvedt (2022) found that even small amounts of social support significantly boost resilience in young people, emphasising its importance in prevention and TRC. Carvalho et al. (2025) highlighted the importance of adopting an ecological approach, considering how various contextual factors within residential care

settings, influence the development of social-emotional competencies. This finding demonstrates that focusing solely on individual traits is insufficient. Instead, understanding and improving ecological systems (micro- and mesosystems) are crucial for meaningful development, with the proposed framework organising key variables ecologically.

In another recent study, McPherson et al. (2025) strongly emphasised the significance of the social and organisational environment, such as relationships with staff, peers, families, and the community, in shaping the development of social-emotional competencies in youth. The findings highlight that the quality of the social climate, trusting relationships, and organisational stability are central ecological components of the milieu that influence young people's well-being and growth. By identifying variables like relational consistency, organisational climate, and external support as key determinants, the study underscores that a positive, supportive milieu is essential for fostering emotional security, autonomy, and social skills. Collectively, these findings align with the Milieu Factor, underscoring the significance of the broader social environment.

By focusing on the Milieu Factor, services can strategically work towards achieving what is most critical to young people and challenging to achieve in a TRC context. Young people in TRC have accumulated lived experiences that have taught them that adult relationships are a source of threat rather than safety. Therefore, young people may struggle to form relationships that are trusting, and culturally safe, with lasting impact on their life trajectories (McPherson et al., 2024). For example, unlike staff and peer relationships, which form within the structured environment of TRC, geographic separation from the family and ongoing conflicts can hinder the reconciliation process. These factors contribute to a sense of disconnection and can perpetuate existing strains on relationships with family members, making reconciliation efforts more complex (Cuervo et al., 2024). Social stigma associated

with being in TRC can impact a young person's self-esteem and willingness to engage with their family and community.

Dual Pathways to Relational Stability and Family Healing

This framework further elucidates that achieving positive outcomes in TRC is not simply about applying specific treatments. It is a complex process where a young person's individual characteristics and history (e.g., individual, abuse and trauma history) shape and inform the treatment approach (specific treatment factors). For example, a history of maltreatment constitutes a significant non-specific (risk) treatment factor, which may be particularly pertinent for females in TRC as shown in Studies 1, 3 and 5. As highlighted in Study 1, females in TRC were also more predisposed to experiencing sexual abuse or a combination of sexual and physical abuse, as well as exposure to violence and trauma, which may explain the more complex profiles of females in TRC.

Study 5 revealed that maltreatment history was the second most significant predictor of mental health profiles among females in TRC, following psychopathology and the Milieu Factor. Delving deeper, distinct patterns emerged: females with a history of higher maltreatment exhibited elevated psychopathology and limited family contact, but reported higher satisfaction with their existing support networks. Conversely, females with a history of low maltreatment showed lower psychopathology and greater family contact, but reported lower satisfaction with their support network.

Considering the different profiles that may emerge in TRC as highlighted in Study 5, it is important to simultaneously secure 'Sustained Relational Stability and Trusting Connections' and 'Relational Trust and Positive Family Dynamics'. The framework adopts Farmer et al.'s (2017) four-pronged conceptualisation to provide a core overview of the crucial TRC components of each treatment approach. Both represent crucial pathways to positive outcomes, however, they necessitate distinct approaches. The former emphasises creating a

structured and predictable environment (Leipoldt et al., 2019), peer-led initiatives that foster social skills development, engagement and autonomy (Christensen et al., 2021), a trauma-informed treatment model, where dedicated staff, trained in trauma-informed and relational techniques (Armes & Loebach, 2023), foster secure attachments and facilitate community integration (McPherson et al., 2025); safety is paramount, achieved through consistent emotional and physical boundaries.

In contrast, the latter approach adopts a more flexible structure, empowering young people to build relationships organically. Grounded in a family-centred model, it prioritises interventions designed to strengthen family relationships, including comfortable visitation settings and highly skilled staff who can effectively promote emotional validation, trust repair, and the development of positive family dynamics (Janssen et al., 2025). This recognises the crucial role of the family as a fundamental system for healing and ensuring long-term stability (Sunseri, 2004, 2020). Consequently, supporting positive trajectories for these young people after TRC may hinge on targeted efforts to enhance external Milieu Factors, with a particular focus on improving family functioning through specialised family therapy, skill-building initiatives, and interventions that directly address underlying relational patterns.

By treating the family as a whole rather than focusing solely on the young person, services can foster a more cohesive and supportive environment that strengthens trust, improves relational stability, and supports sustained well-being. As Sunseri (2004, 2020) notes, investing in family systems and improving their functioning not only benefits the individual but also creates a nurturing milieu that can buffer against future risks and challenges, ultimately facilitating a more positive and resilient long-term development for young people. Without considering these external influences, interventions risk being incomplete and less effective for these young people in particular.

This framework suggests that a comprehensive TRC model must skillfully blend these approaches, recognising individual needs and tailoring interventions to concurrently foster secure residential relationships and healthy family dynamics, maximising opportunities for holistic well-being. By aligning these profiles with the identified framework, care providers can strategically address all relevant specific treatment factors and ensure that treatment is comprehensive, effective, and tailored to the unique needs of the young people in their care.

Organisational Climate and Staff Well-being

A core finding of this thesis is that the therapeutic milieu is only as resilient as the staff who maintain it. While previous literature has long noted the importance of caregiving, this framework clarifies that staff well-being is not a secondary administrative concern but a primary clinical prerequisite for successful TRC. An organisational climate that cares for, values, and respects staff will enhance the ability of staff to provide the best possible treatment to young people. The organisation must be infused with this culture of care at every level. This multifaceted strategy underscores the importance of staff's well-being and competence as the support provided, such as training and mentorship equip staff to provide effective, trauma-informed care. Investing in staff mentorship and psychological safety is a direct investment in the young person's recovery. Supported staff are more likely to be emotionally available, consistent in their responses, and skilled in de-escalation and relational techniques (Duppong Hurley et al., 2017). Further, staff who feel valued and supported are less likely to leave, which is crucial because relationship continuity is vital for effective TRC (Castro et al., 2024). High turnover rates in TRC centres often stem from workforce challenges, such as exposure to client violence, which underscores the necessity of equipping staff with effective de-escalation and behaviour management techniques (Smith et al., 2017).

Youth Empowerment and Therapeutic Engagement

Furthermore, the dynamic approach in which the young people build on the conceptual framework and shape the service provided from admission to discharge is another crucial element. Engaging young people as active participants rather than passive recipients in mental health services cultivates a therapeutic environment that respects and values their insights, which is critical for their personal development and recovery in residential settings (Wittevrongel et al., 2025). These invaluable insights could only be obtained by focusing on young people's perspectives in TRC. Incorporating youth insights encourages a holistic, systemic view of care, recognising that their development is deeply embedded in multiple interconnected ecological layers. Consequently, this approach ensures that interventions are tailored to improve not just individual skills, but also the environments within which they live and interact, making the care more responsive and truly ecological. This understanding ensures that the service is aligned with young people's needs and is youth-friendly.

Ultimately, this framework suggests that the walls of TRC facilities must become more 'permeable' By prioritising the Milieu Factor and dual-factor model of mental health, care providers move beyond containment toward true community reintegration, ensuring that the progress made within care is not lost upon discharge, but sustained through a lifetime of meaningful connection. By prioritising strategies that enhance the Milieu Factor and foster trusting relationships, TRC programmes can create transformative experiences that address the complex interplay of individual and environmental influences. This holistic approach promotes resilience and long-term well-being, and equips young people with the essencial tools they need to navigate their past traumas and build brighter futures.

Limitations and Implications for Research and Practice

At its core, this thesis translates rigorous research into practical action by proposing a comprehensive bottom-up framework centred on key strategies and a vital shift in perspective: elevating TRC beyond a last resort. By encouraging policymakers to view TRC as an integral and valued part of a broader continuum of care, rather than a final, isolated option, this framework offers a concrete blueprint for creating TRC programmes that are better equipped to address the unique and complex needs of young people and support their journey towards resilience and well-being. Given the inherent complexities involved in implementing effective TRC as emphasised in this thesis, this framework offers a timely and invaluable foundation for developing much-needed guidelines for TRC facilities throughout Portugal. This is particularly critical as, despite previous reforms that sought to integrate trauma-informed, culturally sensitive, and youth-centred practices into routine care delivery within a robust legal framework, were unfortunately removed by the Decree Law No. 197/2025/1, of April 21, amending the previous Decree Law No. 450/2023. This recent shift makes the need for a comprehensive and evidence-based framework even more pressing.

While part of the recent reforms are promising in their focus on autonomy and community integration, they may inadvertently neglect the relational and therapeutic elements essential for successful outcomes, especially for youth with histories of maltreatment and complex mental health challenges. As such, by aligning policy and practice with the evidence-based insights of this framework, TRC can transform from a place of mere custodial care into a springboard for hope, healing, and sustained positive change.

Nevertheless, while this thesis offers a valuable contribution to the field, it also acknowledges inherent limitations that point towards exciting avenues for future research and continued refinement. First, the absence of a longitudinal study design presents a clear gap. Future longitudinal investigations could provide critical insights into how both non-specific

factors (e.g., the cumulative impact of maltreatment history) and specific factors (e.g., the influence of the Milieu Factor) impact mental health outcomes and appraisals over time. Such studies would be invaluable in establishing stronger causal relationships, understanding how therapeutic effects evolve, and ultimately, optimising TRC practices and resource allocation to maximise their positive impact on youth.

Second, the absence of parental and family perspectives represents a significant limitation. These voices are vital for understanding the broader ecological context of young people's lives. Parental insights can illuminate home environments, post-discharge experiences, and the complex interplay of support and challenges faced by youth beyond the TRC setting (Kelly et al., 2022). Including these perspectives would foster a more holistic understanding of factors impacting social integration and long-term well-being, informing more family-inclusive policies and practices. Given contemporary Portuguese efforts to support the reintegration of children with their birth families, prioritising future research that engages families is paramount to ensuring that TRC practices are aligned with the broader needs of the child and their entire support network.

Furthermore, the limited participation of TRC facilities in Study 5, resulting in a small, homogenous (female-only) sample, presents a challenge to the generalisability of findings. A small sample inherently diminishes the statistical power of the research, thereby limiting the extent to which conclusions can be confidently generalised to the broader population of young people in Portuguese out-of-home care (Field, 2018). This limitation underscores the critical need for further research encompassing larger, more diverse samples to enhance the validity and transferability of the results.

Finally, the research highlighted a critical need for the development and validation of specific assessment tools focused on the Milieu Factor within TRC settings. Such tool would allow for the systematic measurement of environmental strengths and barriers, facilitating

targeted interventions to improve the quality of care. Indeed, a recent scoping review highlights the lack of readily available, ecologically valid tools to assess and enhance the social-emotional competencies of youth in residential care (Carvalho et al., 2025). Prioritising the development of these tools would empower practitioners to create truly supportive and therapeutic environments, moving beyond simply identifying problems and capturing what is truly important to young people.

While recent legislative reforms in Portugal demonstrate a commendable commitment to relational and systemic approaches to out-of-home care, their full potential cannot be realised without a dedicated focus on strengthening TRC services. By adopting and adapting the framework proposed in this research, Portugal can directly address critical gaps, and develop a more effective, compassionate, and youth-centred system of care. This will require a concerted effort to prioritise the voices of young people and to foster relational stability and supportive milieus, implement trauma-informed practices, actively engage families and communities, and ensure that young people's voices are central to all aspects of their care. The framework presented here offers a practical roadmap for achieving these goals, transforming TRC from a last resort into a springboard for hope, healing, and a brighter future for vulnerable youth in Portugal.

Ultimately, by embracing the principles outlined in this research and implementing the proposed framework, Portugal can create a TRC service that is truly responsive to the needs and rights of young people, promoting their long-term well-being, social inclusion, and successful transition to adulthood. This research offers a compelling vision for a brighter future for vulnerable youth in Portugal, one that is grounded in evidence, guided by compassion, and centred on the unique needs and voices of the young people themselves.

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