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Implementing the CARE model in Spain: effects on relationship quality and child subjective well-being

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ABSTRACT

Introduction: In Spain, a substantial proportion of children and youth in child protection are placed in residential care. These children have been exposed to multiple traumatic experiences such as abuse, neglect, or instability, and tend to present higher levels of emotional and behavioral problems. This context highlights the need to implement trauma-informed and evidence-based intervention models. The present study reports the first implementation of the Children and Residential Experiences (CARE) model in Spain and examines its impact on improving relationship quality and child subjective well-being.
Method: The sample consisted of 81 youth, with assessments conducted at two time points: before the implementation of CARE and 18 months later. The instruments used were the Youth Perception Survey (YPS) to assess the relationship quality and the Personal Well-being Index (PWI) to measure subjective well-being.
Results: The implementation of the CARE model showed a significant improvement in quality relationship and perceived well-being, particularly in the domains of residential home, leisure, and overall life satisfaction. Furthermore, relational quality significantly mediated the relationship between CARE implementation and improvements in subjective well-being, evidencing an association between both constructs.
Conclusion: The CARE model strengthened the bonds between youth and caregivers, establishing secure and supportive relationships and enhancing psychosocial adjustment. Moreover, recognizing youth as competent informants is essential to accurately evaluate their care experiences.

1. Introduction

In Spain, although foster care is legally considered the preferred measure, in practice, approximately half of the 51,972 children and youth in out-of-home care are placed in residential homes (Observatorio de la Infancia, 2024). This extensive use of residential care has been linked to several factors, including the shortage of foster families, the psychological difficulties experienced by many of these youth, and the recent increase in the number of unaccompanied migrant youth arriving in the country (Bravo et al., 2022; López & del Valle, 2013).

When children and youth enter residential care, their life experiences have often been marked by adverse experiences associated with trauma, including instability, exposure to violence, neglect, and physical, emotional, and sexual abuse (Ames & Loebach, 2023; Turner et al., 2019). Exposure to such traumatic experiences is considered a vulnerability factor for developing psychological, social, and behavioral problems compared to those living with their biological families (Engler et al., 2022; González-García et al., 2017; Jozefiak et al., 2016). Moreover, high rates of delinquent behavior, running away, substance abuse, and suicidal behavior have also been documented among this population (Águila-Otero et al., 2024; Attar-Schartz, 2013; Bonet et al., 2020; Fernández-Artamendi et al., 2020). Experiencing a lack of safe and supportive environments hinders the development of effective coping strategies for self-regulating stress responses, often leading to more primitive and extreme fight-or-flight reactions even to minor stressors (Briere, 2002; Kim-Spoon et al., 2013). Indeed, it has been suggested that experiences of complex trauma may at least partially explain the severity of emotional and behavioral problems observed in youth in residential care (Hummer et al., 2010).

As a result of their complex prior life circumstances and the presence of emotional or behavioral problems, these youth are at increased risk of experiencing difficulties in acquiring key life competences (Holden,

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2023), as well as lower levels of subjective well-being (Long et al., 2017; Soriano-Díaz et al., 2023). Such competences, including self-awareness, self-regulation, self-motivation, empathy, and social skills are essential for their overall development (Holden, 2023). The absence or deficit of these aptitudes can compromise both their current adaptation and their ability to successfully transition into adulthood (García-Alba et al., 2022).

Subjective well-being, understood as self-evaluation of life satisfaction both overall and across different life domains (Casas, 2011; Diener, 2012), is closely linked to the development of these competences. Studies indicate that the presence of prosocial behaviors serves as a protective factor for subjective well-being (Ortuño-Sierra et al., 2017), whereas difficulties in emotional self-regulation and peer relationships have been associated with lower levels of this indicator (Soriano-Díaz et al., 2023). Furthermore, evidence shows that, in general, youth in residential care report lower scores of subjective well-being than those in foster care or living with their biological families (Llosada-Gistau et al., 2017; Schütz et al., 2015).

These findings underscore the need to promote interventions that foster the development of competences and enhance the perception of well-being. Research has identified the presence of a meaningful and supportive relationship between youth and caregivers as one of the strongest correlates of higher subjective well-being (Cameron-Mathiassen et al., 2022; Gallardo-Masa et al., 2024). This association is particularly relevant given that childhood traumatic experiences have been closely linked to difficulties in forming trusting relationships (Costa et al., 2022). Within this context, relationship quality has been recognized as a key factor for providing effective care practices (Burns & Emond, 2023; Harder et al., 2013; Izzo et al., 2020; McPherson et al., 2025) and is considered a predictor of adaptive outcomes and intervention success in residential care (Castro et al., 2024; Costa et al., 2020) creating the essential conditions for child development, socioemotional adjustment, and sense of safety (Göbbels-Koch & Gupta, 2025; Ryan & Deci, 2000; Sellers et al., 2020).

Current residential intervention models are framed within trauma-informed care (TIC), aiming to support youth who have experienced complex trauma by strengthening bonds and meaningful relationships (Holden et al., 2010; Steinkopf et al., 2020). TIC represents a holistic approach that addresses organizational cultures and practices, designing an environment that provides children with therapeutic activities as well as positive interpersonal and developmental experiences (Ames & Loebach, 2023; Brendtro, 2019). Therefore, the purpose of TIC is not to treat discrete symptoms related to traumatic experiences, but rather to guide the delivery of services in a way that understands, respects, and appropriately responds to the effects of trauma on the individual seeking care (SAMHSA, 2014).

To achieve this ecological change, trauma-informed care models tend to emphasize staff training as well as the supervision of their practices (Bunting et al., 2019). In this regard, several strategies have been developed to support and strengthen the work of caregivers, including learning collaboratives (Fraser et al., 2014; Henry et al., 2011; Lang et al., 2016), coaching, mentoring, and monitoring of fidelity to the model through supervision processes (Redd et al., 2017). These strategies are complemented by ongoing consultation and support from model developers or external experts (Atkinson and Riley, 2017), as well as continuous staff training, booster sessions, and/or recertification processes (Barnett et al., 2019; Galvin et al., 2021).

In the literature, the most commonly referenced and evaluated trauma-informed care models in residential care contexts are the Sanctuary® Model, the Attachment, Regulation, and Competency (ARC) framework, and the Children and Residential Experiences (CARE) model (Bailey et al., 2018).

This study focuses specifically on the Children and Residential Experiences (CARE) model, an organizational program model that approaches residential care from an ecological and relational perspective (Holden, 2023). The aim of this model is to create the conditions for change and positive development in children and youth through a consistent pattern of positive and reciprocal interactions with caring adults who, over time, foster connection and trust (Bronfenbrenner & Morris, 2007; Li & Julian, 2012; Ryan & Deci, 2000; Schuengel & van Ijzendoorn, 2001). To achieve this, the model is structured around six core principles that guide both daily practices and organizational culture: (a) Relationship-based: Nurturing caregiving experiences, secure emotional bonds, and developmentally supportive relationships are essential for children's and youth growth. (b) Trauma-informed: Sensitive to youth's trauma history. All activities, routines, expectations, and interactions are designed with an awareness of the impact of stress and trauma on child development. (c) Developmentally focused: Opportunities for normative developmental experiences are provided, with expectations tailored to meet each child's individual needs. (d) Family involvement: Connection with family, as well as integration with cultural and community contexts, is encouraged through collaboration with families in planning and designing activities. (e) Competency-centered: Opportunities are created for young people to practice problem-solving, coping strategies, and other life skills. (f) Ecologically oriented: The physical and social environment is designed to support youth meaningful participation in relationships, activities, and daily routines (Holden, 2023).

As an organizational model, CARE engages all levels of the agency, including management, leadership, and direct care staff (Izzo et al., 2022). This is made possible through the role of CARE consultants, who provide agencies with ongoing consultation, training, supervision, and technical assistance in applying the core principles as a framework to guide daily practices and decision-making processes (Holden et al., 2010; Holden & Sellers, 2019).

Available evidence on this model has shown that the implementation of CARE is associated with significant reductions in behavioral incidents such as aggression toward caregivers and runaways (Izzo et al., 2016), as well as in the use of physical restraints (Nunno et al., 2017). Another key finding reported by Izzo et al. (2020) demonstrated that successful implementation of the model improved the quality of relationships between youth and caregivers, a critical component in addressing complex trauma among youth in residential care. Finally, improvements in relationship quality have also been linked to higher perceptions of safety among children and youth (Sellers et al., 2020). These findings have led to the inclusion of the CARE model as an evidence-based program by the California Evidence-Based Clearinghouse for Child Welfare, with a rating of 3 (Promising Research Evidence).

This study aims to examine the impact of implementing a trauma-informed and evidence-based model (CARE) on children in residential care in a region of northern Spain. The specific objectives are to determine whether the implementation improves the quality of relationships between youth and caregivers, as well as their perceived subjective well-being. Additionally, the study seeks to explore the relationship between these two constructs.

Given the aforementioned objectives, the following hypotheses were proposed:

H1: Implementing trauma-informed models, such as the CARE model, improves the quality of relationships.
H2: Implementing trauma-informed models, such as the CARE model, enhances the perceived subjective well-being of children and youth in residential care.
H3: Improvements in relationship quality could be associated with higher perceived subjective well-being.

2. Method

2.1. CARE implementation

The first implementation of the CARE model in Spain was initiated through a coordination process between the agencies, the local public

administration, and the University of Oviedo, in collaboration with the Residential Child Care Project at Cornell University. This three-year project began with the initial baseline data collection through the individual administration of standardized instruments to both youth and staff. This first assessment established the starting point for monitoring the change process and for comparing data with subsequent evaluations. In addition, the initial data collection also involved the translation and adaptation of assessment and dissemination materials to the Spanish context.

After establishing the baseline of the residential homes, the implementation process began with an initial 20-hour training for all staff members to ensure adequate preparation. Following the training period, a CARE Implementation Team was created in each residential home, composed of two university-based CARE consultants, agency leadership, and selected members of direct care staff. Its purpose was to develop an implementation plan tailored to the specific circumstances of each agency.

During the "full implementation" phase, CARE consultants were responsible for guiding the implementation process as well as the program evaluation. Activities included regular supervision to support the day-to-day application of the model's principles, alongside training workshops aimed at strengthening specific competencies, and the creation of communities of practice to facilitate the exchange of experiences among professionals across different homes.

At the midpoint of the implementation process, a second data collection was conducted in order to monitor changes over that period. This intermediate assessment represents a key turning point for the residential homes, as it allowed both the observation of the emerging impact of CARE and the identification of areas for improvement to further strengthen implementation.

2.2. Study design

Youth living in residential homes were assessed in two different cohorts: one prior to the implementation of the CARE model and another after 18 months of application. This design corresponds to a repeated cross-sectional approach, given the impossibility of conducting longitudinal follow-up with the same children. The specific characteristics of residential care programs, characterized by high turnover of children and youth, changes in program type or protection measures, and transitions to adulthood (Poole Quintana et al., 2025; Whittaker et al., 2022), prevented repeated measurements on the same individuals. Nevertheless, the ecological philosophy of CARE suggests that its approach and relational framework become embedded within the home itself, regardless of which children and youth are currently living there or changes in staff composition. In this way, the study assesses the impact of the model on the residential homes, beyond individual case tracking.

2.3. Participants

Agency recruitment

The implementation of the CARE model was promoted and funded by the public administration, which selected the six participating agencies. Subsequently, each agency selected a residential home in which the implementation of the model was considered most feasible. To ensure representation of the different types of residential programs existing in the Spanish region, CARE implementation was intentionally implemented in: one emergency home, two general or non-specific homes, one residential home for adolescents with moderate emotional and behavioral difficulties, one home specialized in the care of unaccompanied migrant minors, and one home focused on supporting adolescents in the process of preparing for independent living and emancipation.

For this study, all children and youth living in these residential homes were invited to participate and share their perceptions of their care experience. In the baseline assessment, there were six missing cases: two due to cognitive difficulties that prevented comprehension of the questionnaires, and four who declined to participate. In the second assessment, there were three missing cases, all due to refusal to participate in the evaluation.

Thus, the final sample consisted of 81 children and youth, of whom 36 belonged to the first data collection (C1) and 45 were assessed in the second cohort (C2). In both periods, assessments were conducted in the same residential care homes, collecting information from the youth residing in them at the time. The average age of the participants was 15.26 years (SD = 2.33), and regarding self-identified gender, 40 identified as female and 41 as male. Descriptive data by cohort are presented in Table 1.

2.3. Instruments

2.3.1. YPS (Youth Perception Survey)

To assess the relationship quality between youth and caregivers, the youth perception Survey (YPS) was used. This questionnaire captures children and youth perceptions of their experiences in the residential home, focusing on daily life, interactions with caregivers and the extent to which these interactions reflect the six CARE principles. The instrument was developed by Cornell University for the implementation of the CARE model (Izzo et al., 2020; Sellers et al., 2020) and was translated and adapted into Spanish by Pulgar et al. (2025). The Spanish version includes 34 items, of which 30 were selected for this study as they refer to relational situations between youth and caregivers. Items use a 0 to 4 response scale, asking "how many staff members are good at… / are like this…?" in reference to the behavior described (e.g., during group activities with other children and youth, when feeling sad or angry, after misbehaving or failing to meet expectations). Response options are: None, one staff member, two staff members, three staff members, and four or more staff members. The reliability of the instrument in this study was $\alpha = 0.928$

2.3.2. Personal Wellbeing Index (PWI)

To assess subjective well-being, the PWI scale (Cummins & Lau, 2005) was used. It consists of seven items that evaluate different life domains: health, standard of living, personal achievements, sense of safety, belonging to social groups, future security, and interpersonal relationships. Response options ranges from 0 (completely dissatisfied) to 10 (completely satisfied). Although the original instrument was designed for use with adults, it was adapted into Spanish and administered to youth by Casas et al. (2013), showing adequate psychometric properties. Since the research sample falls within residential care, four additional items were included, which have been used in previous studies and refer to: The residential care home where they live; how they have fun; their own body; and their biological family (González-García et al., 2022; González-García et al., 2024; Gullo et al., 2023; Soriano-Díaz et al., 2023). The total PWI-11 score was converted to a scale from

Table 1
Sociodemographic characteristics of children and youth.

	Cohort 1 (C1) *M (SD) / N (%)*	Cohort 2 (C2) *M (SD) / N (%)*
Age	15.73 (2.155)	14.91 (2.25)
Gender		
Female	20 (55.6)	20 (44.4)
Male	16 (44.4)	25 (55.6)
Time in residential home		
Around one month	4 (11.1)	9 (20.0)
Between 1 and 6 months	11 (30.6)	16 (35.6)
Between 7 and 12 months	5 (13.9)	8 (17.8)
More tan one year	16 (44.4)	12 (26.7)

0 to 100 to facilitate comparisons. Scores between 70 and 80 are considered indicative of average well-being (Cummins et al., 2008); following this criterion, scores below 70 indicate low well-being, and those above 80 indicate high well-being. The reliability of the instrument in this study, including the additional items, was α = 0.895, indicating adequate internal consistency

2.3.3. Overall life satisfaction scale (OLS; Campbell et al., 1976)

This single-item scale measures overall well-being. It uses a Likert response format ranging from 0 to 10 and has demonstrated good psychometric properties (Lau et al., 2005), allowing comparisons between responses to this item and the mean score of the PWI instrument

2.4. Procedure

The administration procedure was divided into two cohorts: one prior to the implementation of the CARE model (C1) and another after 18 months of application (C2). In both cases, data collection was conducted in person, individually, and without the presence of caregivers in order to minimize potential response bias. For unaccompanied migrant youth with insufficient language proficiency, a mediation professional supported the assessment.

The research was carried out in compliance with all safety and data protection measures established by current regulations, particularly in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of April 27, 2016, concerning the protection of natural persons with regard to the processing of personal data and the free movement of such data, and Organic Law 3/2018 of December 5, on the Protection of Personal Data and guarantee of digital rights. Additionally, data collection was approved by the ethics committee of the University of Cantabria, as recorded in the minutes of the committee's regular meeting held on July 21, 2022.

Before data collection, all participants were informed about the ethical considerations of the study, including its objectives, safeguards, and data protection procedures. Participation was voluntary, and informed consent was obtained accordingly. Moreover, confidentiality and anonymity of responses were ensured throughout the study.

2.5. Data analysis

Data were analyzed using IBM SPSS Statistics, version 27. First, sociodemographic characteristics of the sample were examined using descriptive statistics, and then the applied instruments were analyzed.

To estimate changes in relationship quality (YPS), descriptive statistics (means and standard deviations) were first computed for both cohorts. Then, a Linear Mixed Model was estimated to examine changes during the implementation of the CARE model. In this model, participants were nested within residential centers using a random intercept to account for the non-independence of children living in the same home. Age, gender, and time in placement were included as covariates to control for potential individual differences between cohorts. The model results are reported using estimated marginal means, standard errors, 95% confidence intervals, F-values, and associated p-values. A chi-square test was also conducted to assess changes in the response categories of the YPS (0 = "none," 1 = "one," 2 = "two," 3 = "three," 4 = "four or more"). Effect sizes for this analysis were calculated using Cramer's V, and differences between categories were examined through adjusted standardized residuals, with values below −1.96 or above 1.96 considered statistically significant.

To estimate changes in perceived subjective well-being (PWI-11), descriptive statistics were again computed for each domain and for the overall life satisfaction scale (OLS). Changes between cohorts were then evaluated using Linear Mixed Models with the same structure described above, including a random intercept for residential center and age, gender, and time in placement entered as covariates. A chi-square test was also conducted to assess differences in levels of well-being (low, medium, and high) after the implementation of the model.

Finally, mediation analyses were conducted using the PROCESS macro (Model 4) as an exploratory approach to examine whether relationship quality may influence in the association between CARE implementation and perceived well-being. To ensure consistency with the mixed-model analyses, residential center was dummy-coded and entered as a covariate alongside age, gender, and time in placement.

3. Results

3.1. Relationship quality

To examine changes in relationship quality between the two cohorts (C1 and C2), descriptive statistics were first calculated. The initial cohort showed a mean score of 2.60 (SD = 0.80), whereas the cohort assessed 18 months later showed a mean of 3.06 (SD = 0.64). To evaluate the impact of the CARE model on relationship quality, a linear mixed model was estimated. In this model, participants were nested within residential centers using a random intercept to account for the non-independence of children living in the same home. Age, gender, and time in placement were also included as covariates to control for potential individual differences between cohorts. The model revealed a significant cohort effect, $F(1, 70.67) = 5.41$, $p = 0.023$, indicating higher relationship-quality scores after the implementation of CARE when controlling for covariates and center-level clustering (see Table 2).

To further explore this improvement, we examined whether the distribution of the number of caregivers with whom youth reported meaningful relational experiences changed across cohorts (see Table 3). The chi-square analysis revealed a substantial change in response patterns. A significant decrease was found in the responses corresponding to "0 caregivers" (standardized residual = −4.0), along with a notable increase in the "4 or more caregivers" category (standardized residual = 8.5). This shift in response patterns suggests greater strength in the relationships established with caregivers within the residential home.

3.2. Subjective well-being

Analysis of the Personal Well-being Index showed consistent improvements across all domains when comparing the baseline cohort (C1) with the cohort assessed 18 months after the implementation of CARE Spain (C2). Descriptive statistics and Linear Mixed Models controlling for gender, age, time in placement, and residential center (included as a nested factor) (see Table 4) indicated significant increases in several areas of subjective well-being.

The largest improvements were observed in leisure activities (Mean C1 = 6.42; Mean C2 = 8.41), satisfaction with the residential home (Mean C1 = 6.42; Mean C2 = 8.41), and overall life satisfaction (OLS) (Mean C1 = 5.53; Mean C2 = 7.91). These differences were confirmed by the mixed models, which showed significant cohort effects for leisure, $F(1, 69.27) = 9.72$, $p = 0.003$; residential home, $F(1, 70.51) = 7.82$, $p = 0.007$; and OLS, $F(1, 68.28) = 11.45$, $p = 0.001$. Significant gains were also found in health, personal achievements, belonging to social groups, and interpersonal relationships. Other domains such as security future security, body satisfaction, and family relationships showed positive but non-significant trends in the expected direction.

To further contextualize these changes, PWI-11 scores were categorized into three levels (low, medium, high) based on the 0–100 scale. Scores between 70 and 80 were considered within the normal range, with lower values indicating low well-being and higher values reflecting high well-being. A chi-square test (see Table 5) showed a significant change in the distribution of these levels, indicating that youth reported significantly higher levels of well-being after the implementation of the CARE model compared to baseline.

Table 2
Descriptive statistics and Linear Mixed Model results for Youth Perception Survey (YPS) scores before and after CARE Spain implementation.

	Cohorts	N	M (SD)	Estimated M	SE	95% CI	*F*	p
YPS	C1	36	2.60 (0.804)	2.63	0.15	[2.29, 2.97]	5.41	0.023
	C2	45	3.06 (0.643)	3.05	0.14	[2.71, 3.38]		

Note. M and SD represent descriptive statistics for each cohort. Adjusted means (Estimated M), standard errors, and confidence intervals correspond to the linear mixed model, which included age, gender, and time in placement as covariates. The F and p values refer to the fixed effect of cohort (baseline vs. 18 months) in a model with a random intercept for residential center.

Table 3
Evolution in the response of Youth Perception Survey (YPS) before and after CARE Spain implementation.

No. of caregivers	C1 (%)	C2 (%)	χ2	Crameŕs *V*	Adjusted standardized residual
None	13.10	8.13	87.917	0.191	−4.0
One	9.35	7.30	(p:	(p:	−1.8
Two	19.83	10.91	0.000)	0.000)	−6.1
Three	20.55	19.11			−0.9
Four or more	37.14	54.55			8.5

3.3. Mediating effect of relationship quality on the impact of CARE on subjective well-being

Based on the significant differences observed between the two cohorts in relationship quality and personal well-being scores, a mediation analysis was conducted (see Fig. 1). In this model, cohort was included as the independent variable and relationship quality as a potential intervening variable, in order to explore whether patterns in youth well-being differed across cohorts in ways that may be consistent with the relational principle of CARE. Age, gender, length of stay, and residential home were entered as covariates. To adjust for structural differences between centers, residential home was represented using a set of dummy-coded variables.

The results indicate that, within this model, cohort is significantly associated with both youth subjective well-being ($B = 9.487$, $p = 0.041$) and the quality of relationships with their caregivers ($B = 0.435$, $p = 0.026$), suggesting that the implementation of CARE may be associated with differences in these two constructs. It was also found that relationship quality had a direct effect on well-being ($B = 8.311$, $p = 0.006$). The full model explained 41.6% of the variance in well-being ($R^2 = 0.416$), with a significant indirect effect of cohort on well-being through relationship quality (B = 3.612, BootSE = 2.064, 95% CI [0.213, 8.274]), which is consistent with the possibility that the implementation of CARE, through its relational approach, may be related to differences in youth well-being.

4. Discussion

The aim of this study was to examine the impact of implementing the CARE model on the quality of relationships between youth and caregivers, as well as on their own perception of well-being.

Table 5
Distribution of Subjective Well-being levels (PWI-11) before and after CARE Spain implementation.

Level of well-being	C1 (%)	C2 (%)	χ2	Crameŕs *V*	Adjusted standardized residual
Low	55.9	26.3	6.617	0.303	−2.6
Medium	14.7	21.1	(p:,006)	(p:,000)	0.7
High	29.4	52.6			1.1

Table 4
Descriptive statistics and linear mixed model results for subjective well-being before and after CARE Spain implementation.

	Cohort	N	M (SD)	Estimated M	*SE*	95% CI	*F*	*p*
Health	C1	36	6.83 (2.27)	6.84	0.4	[5.99, 7.70]	6.86	0.011
	C2	43	8.28 (1.93)	8.19	0.37	[7.36, 9.03]		
Standard of Living	C1	36	5.89 (2.79)	6.13	0.64	[4.64, 7.62]	3.40	0.069
	C2	44	9.36 (12.44)	7.38	0.60	[5.87, 8.90]		
Achievements	C1	36	6.75 (2.99)	6.86	0.64	[5.43, 8.29]	4.28	0.042
	C2	45	8.13 (2.59)	8.26	0.60	[6.85, 9.66]		
Security	C1	36	6.69 (3.20)	6.82	0.71	[5.22, 8.41]	1.56	0.217
	C2	44	7.61(2.83)	7.70	0.67	[6.12, 9.27]		
Group	C1	36	6.58 (3.14)	6.64	0.52	[5.48, 7.81]	7.14	0.009
	C2	45	8.47 (2.27)	8.31	0.47	[7.17, 9.46]		
Future	C1	36	6.50 (2.99)	6.58	0.52	[5.54, 7.62]	1.71	0.195
	C2	45	7.69 (2.78)	7.50	0.45	[6.60, 8.39]		
Relations	C1	36	6.86 (2.84)	6.88	0.59	[5.54, 8.22]	6.68	0.012
	C2	45	8.40 (2.18)	8.38	0.55	[7.05, 9.70]		
Residential home	C1	36	5.72 (3.04)	5.67	0.55	[4.50, 6.83]	7.82	0.007
	C2	44	7.86 (2.83)	7.68	0.48	[6.58, 8.78]		
Leisure	C1	36	6.42 (2.73)	6.51	0.54	[5.31, 7.72]	9.72	0.003
	C2	44	8.41 (2.21)	8.40	0.50	[7.21, 9.58]		
Body	C1	36	5.83 (3.49)	5.98	0.78	[4.20, 7.76]	2.93	0.092
	C2	43	7.26 (3.13)	7.22	0.74	[5.46, 8.97]		
Family	C1	36	6.72 (3.53)	7.09	0.81	[5.11, 9.06]	0.58	0.448
	C2	45	8.02 (2.90)	7.60	0.77	[5.61, 9.59]		
Global Well-being (PWI-11)	C1	36	64.37 (22.06)	65.59	4.31	[55.72, 75.47]	8.34	0.005
	C2	39	79.49 (15.46	78.66	4.23	[68.71, 88.61]		
Overall Life Satisfaction (OLS)	C1	36	5.53 (3.25)	5.65	0.58	[4.37, 6.93]	11.45	0.001
	C2	43	7.91 (2.26)	7.81	0.54	[6.56, 9.06]		

Note. M and SD represent descriptive statistics for each cohort. Adjusted means (Estimated M), standard errors, and confidence intervals correspond to the linear mixed model, which included age, gender, and time in placement as covariates. The F and p values refer to the fixed effect of cohort (baseline vs. 18 months) in a model with a random intercept for residential center.

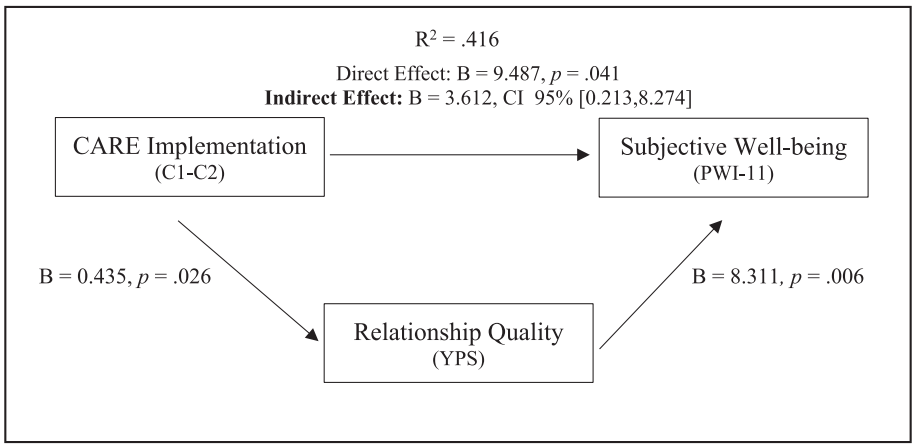

Fig. 1. Model of mediation between CARE implementation, Subjective Well-being (PWI-11) and Relationship Quality (YPS) Note. Age, gender, residential home, and length of stay were included as covariates in the model.

One of the core principles of the CARE model is that strengthening the quality of relationships between youth and caregivers, through more positive daily interactions, promotes youth recovery and development (Izzo et al., 2020). This relational approach to care is strongly supported by both professionals and researchers, who view relational practice as the central axis of effective interventions (Burns & Emond, 2023; Harder et al., 2013; Izzo et al., 2020; McPherson et al., 2025). From this perspective, the residential care home is conceived as a safe and consistently supportive environment that helps youth recover from trauma, meet normative developmental milestones, and acquire essential life competences (Whittaker et al., 2016).

To achieve this type of care, the CARE model proposes ecological changes that involve all levels of the organization through specific improvements in policies, structures, and practice norms (Holden, 2023; Izzo et al., 2022). The findings of this study are consistent with the possibility that relational practices and organizational changes may be associated with improvements in youth perceptions of relationship quality with caregivers. After 18 months of implementation in Spain, an increase was observed in the number of caregivers with whom youth reported positive caregiving experiences. Response patterns also changed, with the option "four or more caregivers" becoming more frequent, alongside a reduction in the category indicating that youth did not report such relationships with any caregiver. Consistent with these findings, Izzo et al. (2020), in a study conducted across 13 agencies in the southeastern United States, also found improvements in relationship quality after the implementation of the CARE model. This change in youth perception is particularly promising given that repeated experiences of trauma in childhood have been associated with a marked difficulty in developing trusting relationships (Costa et al., 2022). Previous research has shown that having at least one stable and reliable relationship with a caregiver provides a secure base for building future relationships (Zegers et al., 2006). Altogether, these results highlight that working from a trauma-informed approach promotes the development of reparative bonds, and the literature consistently indicates that he most effective therapeutic responses occur within culturally relevant, secure interpersonal relationships (Brend & Sprang, 2020; Moore et al., 2018).

With regard to personal well-being, previous studies have shown that children and youth in residential care tend to report lower levels of well-being compared to those in foster care or living with their biological families (Llosada-Gistau et al., 2017; Schütz et al., 2015). This finding highlights the need to reduce these disparities by strengthening interventions within residential care, given that these youth have typically been exposed to greater adversity, including family separation and the experience of living in a residential home (López & del Valle, 2013). The present study suggests that providing trauma-informed care within a relational framework may be associated with higher levels of youth subjective well-being. Results indicated a pattern consistent with mediation, whereby relationship quality was found to statistically account for differences in well-being observed between cohorts after 18 months of CARE implementation. This association is supported by previous research, where authors such as Cameron-Mathiassen et al. (2022) and Gallardo-Masa et al. (2024) emphasized the link between relational practices and well-being, and studies by Ferreira et al. (2020) and Magalhães and Calheiros (2017) demonstrated that positive and supportive relationships are associated with higher levels of psychological well-being.

Considering the domains of personal well-being, the most notable improvements were observed in satisfaction with the residential care home, enjoyment and leisure, and overall life satisfaction (OLS), the latter aligning with the total PWI-11 score. The significant improvement in satisfaction with the residential care home is particularly meaningful, as this domain initially had the lowest score and has been identified as one of the most poorly rated in previous studies (González-García et al., 2022; Soriano-Díaz et al., 2023). This shift in scores reflects that children perceived a transition toward a new care model, moving away from traditional behavioral approaches in favor of trauma-informed interventions. This is consistent with literature warning that universal reward-and-punishment systems can be counterproductive, as they may exacerbate trauma-related symptoms in youth with histories of adversity (Stoll et al., 2024). Therefore, the improvement in satisfaction with the residential home reinforces the importance of adopting relational approaches that create safe and predictable environments, capable of mitigating the effects of trauma, supporting emotional regulation, and ultimately enhancing perceived well-being (Gallardo-Masa et al., 2024; Göbbels-Koch & Gupta, 2025; Holden & Sellers, 2019).

Another domain showing a significant increase in scores was satisfaction with leisure and the way youth have fun. Research has shown that both youth and caregivers often perceive residential care homes as formal settings rather than homelike environments, mainly due to the structuring of time according to caregiver schedules and the presence of highly regulated rules and routines (Højlund, 2011). The implementation of the CARE model has contributed to promoting care practices oriented toward fostering a sense of normality in the planning of activities and the organization of daily routines within residential homes. This sense of normality is particularly relevant for children and youth in care, as being in residential care in itself constitutes a non-normative experience (McPherson et al., 2025). Creating everyday contexts that encourage play, reduce demands, and involve youth in ordinary and meaningful daily activities provides opportunities for healthy growth and development (Delgado et al., 2020; Holden, 2023). In line with this, Gameiro et al. (2024) demonstrated through their D'ART-TE project that

children's leisure activities have therapeutic value and should not be regarded merely as supplementary, rather, they are essential for emotional recovery and social integration within residential care homes.

Finally, a notable increase was also observed in youth overall life satisfaction (OLS and total PWI-11 score). Daily life within the residential care home constitutes a substantial part of these youths' experiences, therefore, feeling safe in their home, forming meaningful bonds with caregivers, and receiving individualized and trauma-informed care may positively influence their overall life satisfaction and help explain the results found in this study. This highlights the direct impact that caregiver interventions have on youth well-being and underscores the importance of generating positive experiences, which have been associated with greater resilience (Pinheiro et al., 2022), reduced emotional and behavioral problems (Magalhães et al., 2021), and enhanced quality of life, perceived self-efficacy, and self-competence (Ferreira et al., 2020).

In light of all this, it worth noting that the findings of this study are based on youth self-reports. This methodological choice aligns with a conceptual framework that recognizes childhood as a distinct stage of life in which children and youth should be actively involved in decisions that affect them, in accordance with their age and experience, and with full recognition of the value of their perspectives (González et al., 2015). Several studies have demonstrated that youth in residential care are competent informants for scientific research (Delgado et al., 2020; Llosada-Gistau et al., 2017), and that, as service users, they are capable of expressing their needs (Sarasa Camacho and Burón, 2025) and evaluating the quality of the care they receive (Pérez-García et al., 2019).

4.1. Conclusions and future implications

Providing positive and high-quality relationships represents the most fundamental aspect of care, especially when being sensitive to the adverse experiences youth have endured and the absence of prior positive bonds. The CARE model emerges as a trauma-informed approach specifically designed to strengthen these relationships. This study presents the first results from the implementation of CARE in Spain, offering a promising framework for enhancing the quality of residential care. The effectiveness of this model extends beyond individualized interventions with youth and represents a paradigm shift in the conception of care. It constitutes an ecological approach that fosters deep organizational change at all levels, providing continuous guidance and supervision of caregiving practices (Holden, 2023).

The findings suggest a pattern in which the cohort assessed after CARE implementation reported higher levels of perceived relationship quality and subjective well-being. Since the residential care home represents the primary context for youth and caregivers are among the most significant figures in their lives, it is important to highlight the critical influence of this environment on their development. Therefore, investing in consistent, affective, and trauma-informed relationships emerges as a key strategy to promote the well-being of youth in residential care (Cameron-Mathiassen et al., 2022; Gallardo-Masa et al., 2024; Izzo et al., 2022).

At a practical level, it is essential to promote policies that support the implementation of evidence-based models and trauma-informed approaches within the child welfare system, in order to enhance the quality of care. Likewise, since these models are supported by scientific evidence, their consolidation requires allocating resources to ongoing evaluation, caregiver training, supervision, knowledge dissemination, and program sustainability.

Finally, this study also emphasizes the importance of considering youth perspectives as a primary source of information about their well-being, reinforcing the idea that adolescents in residential care are competent informants capable of expressing their needs and evaluating the quality of the interventions they receive (Delgado et al., 2020; Llosada-Gistau et al., 2017; Pérez-García et al., 2019; Sarasa Camacho and Burón, 2025).

4.2. Limitations

This study presents several limitations that may have influenced the interpretation of the findings. First, the sample consisted of a small number of residential care homes with highly heterogeneous programs, all located within a single Autonomous Community. Additionally, it is also important to note that the results cannot establish a causal relationship due to the repeated cross-sectional design and the absence of a control group for comparison. Nevertheless, although a longitudinal study would be ideal from a research perspective, the purpose of the CARE model is to permeate the philosophy and daily practices of residential homes, regardless of the specific children, youth, or caregivers present at any given time. Even so, statistically controlling for external variables such as sex, age, type of residential resource, and length of stay helped reduce potential bias. This strengthens the interpretation of the impact of CARE implementation on both relationship quality and subjective well-being and supports the conclusion that the implementation of the CARE model contributed to meaningful improvements in the quality of residential care.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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