Title: Quality of Life Outcomes for Adolescents in Youth Care

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Abstract

Internationally, Quality of life (QOL) research among children and adolescents has seen a marked proliferation over the past decades. Despite conceptual and methodological progress in this field, there still is much to learn about the QOL of young people involved in child and youth welfare and protection services. The present study investigates how adolescents between 12 and 18 years old in residential and non-residential youth care services (*N* = 271) perceive their QOL on the basis of a new specific measure: the Quality of Life in Youth Services Scale (QOLYSS). It further examined associations between demographic and placement-related factors and adolescents' QOL. Descriptive statistics, correlational analyses, and multiple regression analyses were carried out for the overall and domain-specific QOL outcomes. Results show that adolescents reported the highest QOL scores regarding self-determination, material well-being, and personal development. The highest proportions of low domain scores were found in emotional well-being, social inclusion, rights, and physical well-being. Female gender, residential care, and older age were identified as factors associated with lower QOL in a number of QOL domains. Concerning the placement-related factors, length in care and age at entry in care, no significant association was found. The findings of this study support the importance of upholding a broad and multifaceted approach in research and practice when evaluating adolescents' QOL. This study shed light on several specific areas that require particular attention when aiming to enhance the QOL of adolescents in everyday practice and draws attention to gender and contextual disparities.

Keywords: quality of life; outcomes; youth care; adolescents

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Research addressing quality of life (QOL) of children and adolescents in both the general and in specific groups has made considerable conceptual and methodological advances over the last decades (Casas, 2016; Tiliouine et al., 2022). Over time, there have been significant changes in researchers' perspectives on the involvement of young people in this line of research (Ben-Arieh, 2005). With the children's rights approach as driving force, and the Convention on the Rights of the Child as important vehicle, research increasingly adhered to a new image of children as engaged social actors that are knowledgeable about and capable of shaping their own lives (Reynaert et al., 2009). As such, children became increasingly recognized and valued in their role as experts when studying child and adolescent QOL (Fattore et al., 2016). These changes in thinking also further prompted discussions about how to best assess the QOL of youth (Vujčić et al., 2019), with particular interest in ways to gain insight into their subjective perceptions of the world (Ben-Arieh, 2005).

Research in child and adolescent QOL is a growing international and interdisciplinary field of study (Fattore et al., 2019). Despite the substantial progress in various fields, QOL of children and adolescents in youth care (i.e., child welfare and protection) has received far less attention (Swerts et al., 2019). Youth care in Flanders, the northern part of Belgium, covers "a comprehensive array of policies that form a pyramid" (Desair & Adriaenssens, 2011, p. 205). From an organizational standpoint, this manifests in a variety of residential, home-based and ambulatory interventions (Roose et al., 2014) for children and adolescents (and their families) up to the age of 18 years (exceptionally, up to 25 years): at the base of the pyramid you find the indirect preventive child welfare strategies (e.g., family support-oriented services), the top involves residential and non-residential problem-specific and protective services. Residential care is a temporary child protection measure for adolescents who are unable to remain within their family's care and are placed in a living group in a residential organization. Non-residential or home-based care refers to a set of professional (family-oriented) supports in the natural environment of adolescents. For example, adolescents living at home with birth parent(s), living with extended family members (i.e., kinship care), living with a foster family, and living independently. In Flanders, a distinction is also made between directly accessible (i.e., without referral; own initiative of youngsters and parents) and non-directly accessible (e.g., via an intermediary service or juvenile judge) services. While the former are primarily non-residential and short-term oriented, the latter typically refer to the more intensive, intrusive and long-term types of support (Devlieghere, 2017). The scope of this study is on adolescents between 12 and 18 years old involved in the more intensive, intrusive and long-lasting interventions in the top section. Organizations providing these supports fall under the jurisdiction of one overarching agency: Agentschap Opgroeien (‘Agency Growing Up’). The purpose of Opgroeien is to realize the right of every child and youngster in Flanders to grow up with as many opportunities as possible. This agency has been established in 2019 when three sectoral policy partners – Child and Family (in particular for (single) parents with young children), Youth Welfare (in particular for children, adolescents and young adults and their families in a worrying living situation or who have committed offenses), and a part of the services provided by the Flemish Agency for Persons with Disabilities (VAPH) (in particular for children, adolescents and young adults and their families with specific support needs such as emotional and behavioral disorders) – joined forces as a response to the need for more attuned, high-quality and integrated service provision to children, youngsters, and their families in Flanders. The following three types of organizations cover most of the non-directly accessible youth care services in Flanders: (1) residential and non-residential private organizations for specialized youth care; (2) (therapeutic) residential care for youngsters with suspected or diagnosed emotional and behavioral problems; (3) public youth detention centers for youngsters who have committed offenses. The former one also includes home-based services that are directly accessible.

Throughout their lives, many of these youth are known to have experienced difficulties that may negatively impact their opportunities for positive development and a good QOL (Gallagher & Green, 2012; Leloux-Opmeer et al., 2016). These circumstances at some point required the involvement of professional services to ensure a supportive, protective and caring environment in order for children and adolescents to safely flourish and grow in life (United Nations General Assembly, 2010). The reasons why children and adolescents become involved in youth care are highly diverse and complex (Tausendfreund et al., 2016). They range from troubling parent-child relationships, situations of maltreatment, truancy and delinquency, to situations that require specialized support (e.g., emotional and behavioral problems). Research frequently underlines that if the difficulties and needs of young people remain unaddressed, they may have a greater risk of experiencing ongoing strains in various life domains such as housing, school, employment, connectedness with others, and so on (Häggman-Laitila et al., 2019; Osgood et al., 2010). It should be noted that, however, not every child or adolescent coming in contact with youth care services will inevitably wind up in dire circumstances that may compromise the quality of their lives (Tausendfreund et al., 2016). There are young people that, despite their disadvantaged living situation or experienced adversities, are able to overcome the odds they have against them (Stein, 2008).

QOL is a multifaceted concept that serves a number of purposes within social sciences and services. One of the merits of adopting a QOL lens on adolescents in care is that it allows us to better understand their perceptions and evaluations about various aspects and circumstances of their lives (Swerts et al., 2022). Consequently, a child perspective should be decisively considered when investigating QOL (Fattore et al., 2016). In doing so, one proclaims to take serious action in ensuring that young people's voices are meaningfully involved and given due weight on matters that directly affect their lives (Casas et al., 2018). A QOL approach further holds the potential of unveiling critical factors that impact adolescents' lives and can help to gain insight into critical areas of interest that may support the development of interventions, practices and policies aimed at fostering QOL (Carvalho et al., 2021). In this vein, QOL has been used in a wide array of social services to develop person-centered planning and implement individualized support, tailored to individuals' characteristics, perceptions of life, wishes, and expectations (Alborz, 2017; Gómez, Morán et al., 2020; Gómez, Verdugo et al., 2020; Schalock et al., 2018; Swerts et al., 2019; Van Hecke et al., 2021).

Studies have only been sparsely mapping QOL and its relationship with demographic and placement-related factors in the population of children and adolescents in youth care (Carbone et al., 2007; Jozefiak & Kayed, 2015; Lima & de Morais, 2018). Yet, several studies report gender differences in QOL among adolescents in youth care (e.g., Damnjanovic et al., 2012; Gander et al., 2019; Jozefiak et al., 2019; Larsen et al., 2021; Llosada-Gistau et al., 2017, 2020; Nelson et al., 2014). This is in line with research available in the general youth population (e.g., Bisegger et al., 2005; Jernbro et al., 2014; The Children's Society, 2021). Yet, gender disparities are not found in all studies focusing on care settings (e.g., Bradford et al., 2002; Carbone et al., 2007; González-Cabrera et al., 2018). One possible explanation for this inconsistency is that robust comparisons of study findings may be hampered by methodological difficulties such as the use of different scales that may cover different components of QOL (Bisegger et al., 2005; Mendonça & Simões, 2019). While some studies rely on measures that emphasize physical components in life, others also include additional psychosocial components or rely on even broader multidimensional approaches (Mendonça & Simões, 2019). Moreover, differences may be attributed to a gender bias, with girls and boys having different probabilities to give specific responses to certain items (Teresi & Fleishman, 2007). Similar conclusions are drawn for the potential relation between age and QOL. Some studies found younger age to be associated with higher levels of QOL (e.g., Bradford et al., 2002; González-Carrasco, 2017; Jozefiak et al., 2019; Larsen et al., 2021; Llosada-Gistau et al., 2020), whereas others were not able to confirm this assumption (e.g., Carbone et al., 2007) or even found younger age to be predictive of lower QOL (Nelson et al., 2014).

Another key feature to take into account is the association between QOL and placement-related characteristics. Similar to personal factors, the relationship with these factors is also considered to be ambiguous. Commonly explored features are, amongst others, age at entry, length of time in care, placement stability, type of setting (e.g., residential versus non-residential), time in current placement, and satisfaction with placement (Carbone et al., 2007; Carvalho et al., 2021; Llosada-Gistau et al., 2017, 2020). Of these factors, being involved in youth care, and particularly residential care, has been consistently associated with lower QOL outcomes. Overall, studies comparing the QOL of adolescents in youth care to the general youth population report poorer QOL among those in care (Carbone et al., 2007; Greger et al., 2016; Jozefiak & Kayed, 2015; Llosada-Gistau et al., 2015; The Children’s Society, 2012). In the same vein, studies examining QOL differences between youth in various types of care also demonstrated similar results. For example, Llosada-Gistau et al. (2017, 2020) compared the subjective well-being of adolescents in residential care, kinship, and non-kinship foster care, and found that the first group reported poorer outcomes. This finding has also been corroborated in a number of other studies (Carvalho et al., 2021; Damnjanovic et al., 2011, 2012; Delgado et al., 2020; Jozefiak & Kayed, 2015; van Damme-Ostapowicz et al., 2011).

Findings regarding other potential correlates of QOL have not always produced unequivocal results. For example, some studies have identified an association between (a lack of) placement stability and adolescents’ well-being (Dinisman et al., 2012; Llosada-Gistau et al., 2020; Mabille et al., 2022; Montserrat, 2014). Other studies, however, found no association between self-reported health-related QOL and the number of lifetime placements (Carbone et al., 2007). The same can be stated about the association with other placement-related factors. These varying results are actually not so surprising. The field of child and adolescent QOL research is still fraught with a number of methodological and conceptual issues that may hinder adequate comparisons across studies (Toussaint et al., 2022; Wallander & Koot, 2016). For example, studies may differ in terms of sampling procedures (e.g., age, location, country) and methodology (e.g., instrument used, underlying conceptualization, source for reporting). More studies addressing the QOL of adolescents in youth care are thus needed to obtain a better insight into the overall QOL of this population as well as the extent to which the aforementioned characteristics impact QOL in diverse contexts.

The purpose of the present study was to explore the QOL of adolescents between 12 and 18 years old in youth care in Flanders (Belgium). The objective was not only to obtain more insight into their perceptions about life by describing and analyzing QOL-related personal outcomes, but also to examine the association between demographic and placement-related factors and adolescents' QOL (i.e., gender, age, type of setting, length in care, and age at entry in care). Based on available literature among young people in youth care, we expected lower levels of QOL among girls and older adolescents, regardless the type of setting. In addition, we hypothesized that adolescents in residential care would have lower QOL scores than those living in a family environment.

Methods

Participants

A purposive sample (*N* = 280) of adolescents between 12 and 18 years old in youth care (*M* = 15.43; *SD* = 1.73) was recruited. Nine cases have been dropped from further analyses because of issues with missing data (Authors, 2023). While participants were mainly involved through residential and home-based services, only two adolescents participated from an ambulatory service that provided support after school hours. Because these participants were also receiving home-based support, they were included in the category 'home-based support'. Table 1 presents the sociodemographic characteristics of the sample.

Insert Table 1 about here

Adolescents were recruited in services in the two main youth care sectors providing support to adolescents and their families in Flanders: (I) the sector 'Youth Welfare (YW)' focuses on children and adolescents and families in vulnerable situations (i.e., private residential and non-residential services for children and adolescents growing up in an unstable environment, troubled parent-child relationship, situations of maltreatment, among others) and on minors who have been charged with a criminal offense such as fighting, burglary, drug use or dealing, and so on (i.e., secure residential care); and (II) the sector of the 'Flemish Agency for Persons with Disabilities (VAPH)' provides support to children and adolescents with disabilities and their families. In the latter sector, this study specifically focused on (therapeutic) residential organizations providing support to youth with emotional and behavioral problems. To be eligible to participate, participants had to meet following criteria: (I) receive home-based, residential or ambulatory support; (II) be between 12 and 18 years old; and (III) have sufficient knowledge of Dutch.

To recruit participants, gatekeepers (e.g., management, coordinators) of 45 organizations in Flanders were sent an information email containing details about the purpose of the study and how data collection would be carried out. Non-responders were sent reminders. A total of 28 organizations were interested in taking part in the study and were able to coordinate the recruitment of adolescents. Eleven organizations did not answer, and six organizations were unable to participate at the moment. Due to COVID-19 restrictions (data collection started in February 2020), four interested organizations were eventually not able to participate at the time, resulting in a partnership with 24 organizations. These organizations were provided with an infographic about the project to further inform support staff and adolescents about the study, and to ask for informed consent for study participation . The number of adolescents involved per organization ranged from 1 to 17.

Instrument

The Quality of Life in Youth Services Scale (QOLYSS; Authors, 2022, 2023) has been used in this study. The QOLYSS is a population-specific measure for the self-reported evaluation of QOL among adolescents (12 – 18 years old) in youth care. It examines adolescents’ perception and evaluation of different life domains using 78 items that have been organized around eight domains (Schalock & Verdugo, 2002): personal development (9 items; e.g., “*I can spend time on things that are important to me*”), self-determination (10 items, e.g., “*I am involved in important decisions in my life*”), social inclusion (10 items, e.g., “*I feel that I am important to others*”), rights (12 items, e.g., “*I have enough privacy where I currently live”*), interpersonal relations (9 items, e.g., “*There are enough people in my life I can rely on when I need to*”), emotional well-being (9 items, e.g., “*I feel good about my future*”), material well-being (10 items, e.g., “*I have personal belongings that are important to me*”), and physical well-being (9 items, e.g., “*I take care of my appearance*”). Although the number and naming of domains differ, this framework resonates well with other measures soliciting the viewpoint of children and adolescents on aspects of their lives (e.g., Cummins & Lau, 2005; Rees & Main, 2015; The Children’s Society, 2021; Wood & Selwyn, 2017). The underlying model of the QOLYSS reflects a sound theoretical and measurement framework that addresses components (i.e., domains) that are considered relevant to and shared across people.

This framework has gained a lot of international traction over the past decades in many research areas and has shown its potential and value for evaluating the quality of life of adolescents in different fields such as mental health (De Ruysscher et al., 2016), intellectual disabilities (Gómez et al., 2016), and regular and special needs education (Muñoz-Cantero et al., 2017). The associated operational quality of life measurement model represents a set of eight correlated universal core domains that together give in-depth insight into the personal well-being of individuals (Schalock et al., 2016). While there is agreement that the eight quality of life domains are important to all people (Van Hecke et al., 2018), it was ensured that – for the population under study – the most critical and appropriate content is inserted into the domains, which in turn will facilitate the assessment of personal outcomes (Fernández, 2019; Gómez, 2010; Heras et al., 2021).

It has been previously stated that the concerns of children and adolescents in care situations are not always sufficiently addressed in measures designed for the general population (Wood & Selwyn, 2017). The operationalization of this framework has therefore been tailored to meet the characteristics and concerns of adolescents in youth care (Authors, 2022). The QOLYSS has been designed in an intensive co-creative process with adolescents in residential and non-residential youth care services to ensure its relevance and appropriateness. The process was driven by a profound belief in the importance of grounding the tool in the experiences and guided by the knowledge and voices of adolescents concerned. More specifically, when developing the scale, adolescents were both key informants to deliver initial content for the scale (i.e., ensuring the critical 'insider perspective' (Vogt et al., 2004) and the main judges in selecting the tool's final content. While the QOLYSS covers a variety of generic components relevant to all adolescents, it also covers elements that are perhaps of less pressing concern to youth in the general population (e.g., having people around them advocating for their rights; being properly informed about decisions taking for them, and so on). All items of the QOLYSS are written in first-person and are rated using a 6-point agreement scale (1 = completely disagree; 2 = mostly disagree; 3 = somewhat disagree; 4 = somewhat agree; 5 = mostly agree; 6 = completely agree).

The QOLYSS demonstrated acceptable to excellent internal consistency for the eight subscales (ordinal α range: .791-.939 [subscale Interpersonal Relations – subscale Rights]) and the total scale (α = .92) and adequate evidence of validity related to its content and internal structure (Authors, 2022, 2023). The validation study of the QOLYSS provided evidence of convergent validity which demonstrated that, while not completely independent (i.e., intercorrelated), each subscale taps into a relatively unique component of quality of life. Furthermore, confirmatory factor analysis provided evidence that the eight-intercorrelated factor model adopted in the QOLYSS showed the best fit to the data compared to other measurement models, supporting the notion that the adopted model is a promising way to capture the concept of quality of life of adolescents in youth care.

The QOLYSS provides domain-specific QOL-scores as well as an overall QOL composite score. We also examined the proportion of low QOL scores (score < 5 when examining mean domain scores; score < 4 when examining individual item scores) to gain insight into potential specific areas where adolescents may encounter challenges. Domain scores are presented as the mean of individual scores on a specific subscale (transformed mean with a maximum score of 10). The overall QOL composite score is calculated on the basis of the domain-specific QOL scores. This summative score is computed by taking the mean of the eight average QOL domain scores. The higher the score, the higher the QOL of the adolescents.

Procedure

An electronic version of the QOLYSS was designed using Qualtrics XM (www.qualtrics.com) and administered in-person using a tablet. Adolescents residing in closed residential care at the time of the study, completed a pen-and-paper version of the QOLYSS because data collection via tablet was not allowed due to institutional regulations. In line with best practices (Coons et al., 2009), the migration of the pen-and-paper version to an electronic platform was done with minor modifications. These included non-substantive modifications to instructions (i.e., tapping instead of circling the response) and minor format changes (i.e., one item per screen instead of multiple items on one page). The lead researcher and the supervisor of the project visited all youth who had expressed interest in taking part in the study.

Participants were given introductory information about the purpose and design of the study prior to the data collection by the researcher. Ethical aspects of the study were discussed (e.g., the right to not answer questions and to refrain from participation at any given time) and participants received information regarding the scale (e.g., structure, answering format). It was mentioned that items would be presented one-by-one and that they could track their progress via an indicator on the tablet. It was stressed that every question required a response before being able to move on to the next one, but if they did not want to reply or could not think of a suitable answer at the time, they could select the additional option 'I don't know'. Before administering the QOLYSS, participants were ensured they could take as much time as they needed to respond to all questions and could ask questions at any given time. On average, it took adolescents 20.43 min (SD = 9.32; range 5.1 to 51.53 min) to complete the QOLYSS.

The study design was approved by the Ethics Committee of [location blinded for review], in accordance with internationally accepted criteria for research. All participants were provided with oral and written information about the study and written informed consent was obtained prior to any data collection. Support staff also informed adolescents' parents or guardians about the study participation of their child, and none of them refused participation. Participants were compensated for their time invested in the study with a voucher for a local store worth €10.

Data Analysis

Analyses were carried out using the Statistical Package for the Social Sciences 25 (SPSS 25). Prior to generating QOL results, missing values were analyzed. Out of the 271 adolescents who completed the QOLYSS, approximately half (*n* = 142; 52.4%) replied to every item in the QOLYSS. Within the group of respondents with incomplete data, 43 (15.9%) had missing data on one item. Based on all values in the dataset (*N* = 21138), there were just 2.2% missing values (*n* = 466). In case of small amounts of missing data (<10%), single imputation (e.g., individual mean) is considered to perform almost equally well as more complex, multiple imputation procedures (Peyre et al., 2011; Shrive et al., 2006). Therefore, missing QOL values in this study were replaced with the mean of participants' responses to the other items in the subscale. This was, however, only done if respondents had no more than one missing value in the subscale. Cases with two or more missing values within a subscale were excluded from the QOL analyses.

Descriptive statistics (i.e., mean, standard deviation, median, range, absolute and relative frequencies) were used to examine the demographic and placement-related characteristics of the adolescents, as well as the QOL outcomes (dependent variables) covered by the QOLYSS: eight mean domain-specific QOL scores and one composite QOL score. Visual inspection of the item response distributions indicated a negative skew in almost all domains and the QOL composite score. Tests for normality corroborated the non-normality of the QOL outcome variables. This is in line with previous studies finding negatively skewed non-normal distributions for QOL data (Cummins & Gullone, 2000; Fayer & Machin, 2007). Therefore, non-parametric tests (i.e., Mann-Whitney U-tests) were used to test for significant QOL differences by gender, type of setting, and age.

Different bivariate correlational analyses were carried out to examine the relationship between the aforementioned QOL outcomes and independent variables based on personal characteristics (i.e., gender and age), and self-reported placement-related characteristics (i.e., type of setting, age at entry in care, length in care). *Type of setting* was determined by asking participants if they were currently staying in a residential facility or if they were receiving home-based support while living with their (foster) parents, other family members, or in other conditions (e.g., alone, with friends). This was included as a dichotomous variable (0 = non-residential; 1 = residential). *Age at entry* was determined by asking participants about their age when they entered the professional child and youth care system. *Length in care* was determined by subtracting the reported age at entry from the age of participants at the time of administration.

Spearman's rank-order correlation was used for non-normally distributed continuous variables (i.e., age, age at entry, length in care). In addition, multiple regression analyses were performed to investigate the contribution of the personal and placement-related independent factors on each of the QOL outcomes. To do so, the variables that showed statistical significance in the bivariate correlational analyses were added at the same time to construct the initial predictive model (i.e., the enter method). In case of any non-significant variables, the least significant ones were removed one-by-one from the full model and each time the model for the remaining factors was re-estimated until satisfactory significance is demonstrated. In addition, the semi-partial correlation coefficients (sr^2) were analyzed to examine the unique contribution each factor brings to the model. Assumptions of multiple regression (i.e., no multicollinearity between factors in the models; normality and homoscedasticity of residuals) were tested and deemed satisfactory.

The Bonferroni correction for multiple tests was applied to control for Type I errors, reducing the p-value to .0056 for group comparisons, and to .01 for the bivariate correlational analyses. The magnitude of effect size statistics (r) was interpreted following the guidelines by Cohen (1992): ≥ .10 (small); ≥ .30

(moderate); and ≥ .50 (large). The proportion of variation in QOL outcomes (R^2) was interpreted as follows (Cohen, 1988): < .02 (very weak); <.13 (weak); <.26 (moderate); ≥ .26 (substantial).

Results

Overall and Domain-Specific QOL Scores

The average QOL total score for adolescents in this study was 7.68 (*SD* = 1.28). The highest mean levels of QOL were found in the domains self-determination *(M* = 8.19; *SD* = 1.30), material well-being (*M* = 7.97; *SD* = 1.50), and personal development *(M* = 7.95; *SD* = 1.38; see Table 2). The domains emotional well-being and physical well-being showed the lowest mean scores, respectively 7.17 (*SD* = 1.91) and 7.29 (*SD* = 1.58). The highest proportion of adolescents reporting a low QOL score was found in emotional well-being (16.3%). In addition, about one in ten adolescents reported a low QOL for social inclusion (10.2%), rights (9.7%), and physical well-being (9%). In comparison to these domains, only a few adolescents reported a low QOL regarding their sense of self-determination, personal development, and material well-being. To obtain a more detailed account of adolescents' results, the interested reader is referred to the overview of item-level descriptives of all QOL items in the QOLYSS in Annex1.

Insert Table 2 about here

Group Differences in QOL

This study further examined potential differences in QOL scores in relation to gender, age, and type of setting. Significant gender differences were found for several QOL outcomes. More specifically, girls reported significantly lower scores on interpersonal relations, material well-being, emotional well-being, physical well-being, social inclusion, and the total QOL score (Table 3). The magnitude of these differences was small, with the exception of emotional well-being which had a medium effect size (>.30). A comparison of adolescents in residential care with those receiving support in the home environment (Table 4) showed that youngers in residential care reported lower scores in interpersonal relations, emotional well-being, and physical well-being. Associations between QOL outcomes and age also revealed that older adolescents were more likely to have lower QOL regarding interpersonal relations (*r* = -.18, *p* = .003), personal development (*r* = -.21, *p* = .001), and emotional well-being (*r* = -.17, *p* = .005).

Insert Table 3 about here

Insert Table 4 about here

To better understand between-group differences, Table 5 presents a detailed overview of fine-grained item-level analyses regarding the variations in the QOL domains that showed significant differences. Only items that revealed significant between-groups differences are shown in the table.

Insert Table 5 about here

Factors Associated with Domain-Specific and Overall QOL Scores

Table 6 shows the association between the sociodemographic and placement-related variables and the QOL outcomes. Male gender was found to be positively associated with all QOL domains, but demonstrated no significant correlation with personal development, material well-being, rights, and self-determination. The correlation between gender and interpersonal relations, social inclusion and total score was small, but a moderate association was found with emotional well-being and physical well-being. Age was negatively associated with interpersonal relations, emotional well-being, personal development, and the total score. Regarding the placement-related variables, type of setting was negatively correlated with interpersonal relations, emotional well-being, and physical well-being. The other two placement-related factors (i.e., age at entry and years in care) were not significantly associated with any of the QOL outcomes.

Insert Table 6 about here

Nine separate multiple regression analyses were then performed to explore the association between personal and placement-related factors and QOL (Table 7). Three factors that showed statistical significance in the correlational analyses were added as independent variables in the multiple linear regression analysis. The rights and self-determination domains were excluded from these analyses because no statistically significant factors were retained from the previous step. Looking at the two demographic variables, gender contributed the most to the QOL outcomes. More specifically, male gender was associated with higher overall QOL, and higher scores in all domains, except for personal development, rights, and self-determination. Furthermore, adolescents' age was negatively associated with interpersonal relations, personal development, and emotional well-being, meaning that older adolescents evaluate their QOL lower in these domains compared to younger adolescents. Regarding the placement-related factors, the type of setting was negatively associated with interpersonal relations, emotional well-being, and physical well-being. In other words, adolescents in residential care reported lower QOL scores in these domains than adolescents receiving home-based support. The adjusted R^2 reveals that only between 2% and 13% of the variability in QOL outcomes can be explained by the separate (or a combination of the) variables gender, age, and type of setting.

Insert Table 7 about here

Discussion

The main goal of this study was to gain insight into the QOL of adolescents in youth care and to examine the association between demographic and placement-related factors and adolescents' QOL. Analyses revealed significant disparities in QOL scores between boys and girls, and between adolescents in residential care and those receiving support while living in a family environment. Length of time in care or age at entry did not show any association with adolescents' QOL scores.

An interesting result is that the mean scores for the eight subscales and the total composite score show a tendency toward higher levels of QOL. This study observed the highest mean QOL scores in the domains personal development, self-determination and material well-being. This finding could indicate these adolescents may have positive experiences regarding the things they have, what they learn, and what they can do and decide for themselves. Noteworthy is the particularly high score in the domain of self-determination ($M = 8.19$), which encompasses aspects such as having a sense of ownership in life, pursuing personal goals and desires, and being involved in critical decisions, and so one. Examining the low QOL scores on item-level, however, revealed that a sizeable group does not feel in control over their own life (23%), asks for help when they need it (21.2%), feel involved in critical decisions (12.3%), or think that their wishes, needs and desires in life are sufficiently taken into consideration in the supports they receive (13.8%). Previous research has shown that adolescents in care have often been denied meaningful involvement in decision-making processes in a lot of domains in these settings (Garcia-Quiroga & Agoglia, 2020; Polvere, 2014). The narrative review by ten Brummelaar et al. (2018) revealed that, amongst other reasons, younger children and adolescents with more lifetime placements experienced fewer opportunities to participate in decision-making. However, supporting young people in having control over and being able to influence circumstances and decisions in life should be an ongoing focal point of youth services. It has been previously identified as a critical component of QOL of youth in care (Fattore et al., 2009; Swerts et al., 2019).

While high mean scores are typical for negatively skewed QOL data (Cummins & Gullone, 2000), studies have cautioned for a potential life optimism bias in research on well-being among children and young people (Casas et al., 2013). This refers to a tendency among participants to uphold a more positive self-image when asked about their personal perceptions and opinions about varying aspects of life (Cummins et al., 2003). This may require special attention from research and practice in youth care, because these results could relate to how adolescents cope with adverse life circumstances. As Savahl et al. (2015, p. 222) describe, desensitization to adverse circumstances may lead to a "normalization and acceptance of unfavourable life conditions, where children and young people 'learn to be satisfied' with what they have."

The overall positive findings should also be interpreted with caution because of some methodological issues. Relying on mean scores has the drawback of averaging-out variations. Further delving into the proportion of adolescents demonstrating low QOL scores across domains may give nuance to the general findings. In this regard, a key finding of the study is that, while only a few adolescents reported a low overall QOL score (3.2%), the largest proportion of low QOL scores were found in the domains of emotional well-being, social inclusion, rights, and physical well-being. Low ratings were particularly noticeable in the domain emotional well-being (16.3%), which entails aspects such as self-esteem, self-worth, sense of safety, free from stress, and so on.

In line with previous research (Damnjanovic et al., 2012; Gander et al., 2019; Jozefiak et al., 2019; Morán et al., 2019; Van Hecke et al., 2021), gender differences were identified in both domain-specific and overall QOL. More specifically, male gender was associated with higher overall QOL, and higher scores in emotional well-being, physical well-being, interpersonal relations, and social inclusion. The hypothesis that lower QOL scores were expected among girls in youth care, regardless of the type of setting, was thus partly confirmed. Gender differences were, however, mainly apparent in the domains that tapped into psychological and social aspects of life. The variation in scores between girls and boys could be explained, to some extent, by the fact that girls (compared to boys) are believed to be more prone to negative perceptions of psychosocial facets in life such as self-esteem, self-image, appearance, and demonstrate more internalizing mental health problems (Kaye-Tzadok et al., 2017). In this vein, scholars point to both biological and cultural influences that could play an important role in girls' negative evaluations of life (González-Carrasco et al., 2017). Of special concern to girls in youth care, Montserrat et al. (2015) highlighted that critical changes in the stability of life (e.g., changes in their immediate family or where they live) could particularly compromise girls' perceptions of QOL compared to boys.

The hypothesis that older adolescents have lower levels of QOL regardless of type of setting, was not fully supported by this study. While some studies found an association between being younger and higher levels of QOL (e.g., González-Carrasco, 2017; Jozefiak et al., 2019; Larsen et al., 2021), this study did not find a relationship with overall QOL. A noteworthy finding is, however, that older adolescents did report lower QOL in three specific domains: interpersonal relations, personal development, and emotional well-being. While more research is needed to accurately pinpoint why these results occurred, a possible explanation could be that older adolescents are more able to reflect on their own thought processes compared to their younger counterparts (Llosada-Gistau et al., 2020). As such, they could report a more nuanced account of how they feel about life. Another possible explanation could be that older adolescents are more aware of or concerned about challenges related to their transition to adulthood (Mendonça & Simões, 2019).

Most studies comparing the QOL of adolescents in residential care to those receiving support while living in a family environment (e.g., home-based support; foster care) consistently report significantly lower QOL scores for adolescents in residential care (e.g., Damnjanovic et al., 2012; Delgado et al., 2020; Jozefiak & Kayed, 2015; van Damme-Ostapowicz et al., 2011). This study was only able to corroborate this finding in a few life domains. Consistent with earlier studies in residential youth care (e.g., Greger et al., 2016; Jozefiak & Kayed, 2015), this study found poorer QOL in the domains interpersonal relations, emotional well-being, and physical well-being. More negative evaluations by youth in residential care may rather be attributable to differences in circumstances and characteristics of the children and their families, than the setting itself (Llosada-Gistau et al., 2020). More specifically, these youth may more often experience emotional and behavioral difficulties, problems with peers, adversities in family life, higher number of lifetime placements, and (mental) health problems (Leloux-Opmeer et al., 2016; Lou et al., 2018), which may have impacted their evaluations on specific domains.

It is also worth noting that, in line with previous studies (Carvalho & Delgado, 2021; Llosada-Gistau et al., 2017), item-level analyses in this study revealed that adolescents in residential care were less satisfied with the place they lived and their current living situation (i.e., being in residential care) compared to adolescents being supported in a family environment. There is a variety of reasons why these youth may report more negative evaluations about this issue. Residential care is considered an intrusive and disruptive intervention. It is therefore usually limited to those instances where such an intervention is deemed in their best interest and most appropriate, essential, and beneficial for the child concerned (United Nations General Assembly, 2010). Although these conditions may be met from a professional standpoint, youth may still feel as if they are not treated fairly and denied a voice in this critical life event. Feeling restricted in their sense of self-agency, having no clear idea on why they are in care, and the experience itself of being “taken away” from one’s immediate family environment can significantly impact young people’s overall sense of QOL and their evaluations about different aspects of life (Barendregt et al., 2015; Davidson-Arad & Klein, 2011; Swerts et al., 2019; Wood & Selwyn, 2017). It is thus crucial to prioritize young people’s perception of their placement in daily practice, regardless of the environment, and to genuinely listen, acknowledge, and give due weight to their opinions on this issue (Llosada-Gistau et al., 2017). Furthermore, negative evaluations may also stem from adolescents being unhappy with the people they live with in residential care. We know from previous research on group climate in residential care that having positive feelings of connectedness with peers and support staff are important ingredients for adolescents to feel good during their stay (Leipoldt et al., 2019). This, in turn, is assumed to contribute directly to the QOL of this population (Leipoldt et al., 2022; Van der Helm et al., 2018).

An interesting finding is that, in contrast to the study by Carvalho and Delgado (2021), we did find significant differences between how adolescents in residential care and those supported in a family environment perceive their future. More specifically, adolescents in residential care in our study were found to be less positive about how they felt about their future. This is not a minor issue as having positive future expectations can contribute to successful transitions out of care and better opportunities to cope with challenges later in life (Sulimani-Aidan, 2017). This finding could be attributed to the fact that the future pathways of young people in youth care are not always clear (Fox et al., 2008). Many youth are confronted with the uncertainty related to the length of their stay in residential care. Every child has the right to grow up with their family and be raised in a family environment (United Nations

General Assembly, 1989). In child welfare and protection services, there is a strong and legitimate emphasis on keeping families together for as long as possible (Minkhorst et al., 2014). As mentioned earlier, out-of-home placement is considered a highly intrusive and disruptive intervention and should be avoided whenever possible. When the decision is made that a child must be removed from home, services generally aim to limit the length of stay for children and to reunify them with their families as soon as possible (Vanderfaeillie et al., 2023). Although family reunification is a main objective in the support of youth who have been separated from their family, this outcome is not always easily achievable or even beneficial for all (Martín et al., 2020). As a result, the short- and mid-term future perspectives may be compromised and unclear for adolescents in residential care. Will they return to their family once they reach the age of 18? Will they prolong their stay in care after turning 18 years of age? Furthermore, when family reunification is not a viable option, adolescents may also decide to prepare for their transition out of care into independent living. While many of these youth have optimistic views of the future and look forward to a life outside youth care, there are also many that worry because of the accumulation of perceived problems in the present life and concerns about potential struggles in various future life domains such as employment, housing opportunities, feeling isolated, and so on (Stein, 2008). This may result in youngsters feeling hopeless about their future (Van Audenhove & Vander Laenen, 2017). Yet, creating space to discuss the personal aspirations and future expectations from the standpoint of young people within daily practice can produce unique opportunities while in care, during preparation of transitions, and after leaving (Naert et al., 2020).

Some limitations of this study should be considered. First, the non-probability sampling strategy (i.e., purposive sample) adopted in this study limits the generalizability of the findings. Youth involvement was dependent on organizations' willingness to facilitate the research and only adolescents from problem-specific and protective services were involved. In addition, more adolescents in residential care than those receiving support in their home environment participated. While this study aimed to include a broad and heterogeneous group of adolescents (in terms of, for example, type of support and age), findings must be interpreted with care and conclusions cannot be generalized to the broad group of adolescents in youth care. Second, there are significant differences in how child welfare and protection services take shape across countries (Gilbert et al., 2011). As a result, applying the findings of this study to other countries should be done with caution. Third, no evidence for measurement equivalence between the two modalities of the QOLYSS (i.e., pen-and-paper and electronic) is established in this study. Although no quantitative equivalence studies are required because of the minor differences between pen-and-paper and electronic versions, it is recommended that future research aims to establish evidence for measurement equivalence through cognitive debriefing or usability testing (Coons et al., 2009). Fourth, gender was assessed in this study as a dichotomous variable. However, contemporary discussions have made clear that gender is a broader and non-binary concept (Lindqvist et al., 2021). Fifth, although this study included a number of interesting sociodemographic and placement-related variables, there are many other variables of interest that may be associated with the QOL of adolescents in youth care. Future research may explore adolescents' QOL against a wider range of personal and contextual aspects such as placement stability, time in current placement, satisfaction with caregivers, satisfaction with support provision, educational outcomes, family background, mental health needs, and so on. Sixth, the cross-sectional design of the study calls for caution when interpreting the results concerning factors influencing QOL. While the findings of this study reveal some relationships between factors and QOL scores, longitudinal research is needed to look into the extent to which QOL varies over time and to investigate the causal relationships between factors. Finally, the QOLYSS has been designed as a population-specific measure, hindering its use for comparative purposes. However, group comparisons have been identified as a fruitful approach to inform social policy and practice on critical areas to enhance the lives of youth in care (Llosada-Gistau et al., 2019).

Conclusion

This study expands the current knowledge base regarding our understanding of adolescents' own evaluations and perceptions about varying aspects and circumstances of their lives. In doing so, it acknowledges and stresses the importance of putting the child perspective on the foreground in QOL research (Fattore et al., 2007; Garcia-Quiroga & Agoglia, 2020). While the findings from this study clearly highlight the importance of making the mental health of adolescents in care a priority, other domains have proven to be equally important to develop and implement practices and policies aimed at enhancing QOL. This necessitates the adoption of a broad and multifaceted view on QOL (also including issues such as freedom of choice, experience of rights, sense of belonging, involvement in society) to better understand the lives of these youth. Although this study provided valuable insights into the perception and evaluation of varying aspects in life of adolescents in youth care, more research adopting qualitative research methodologies is needed to obtain a deeper understanding of how young people shape and make sense of these aspects relating to their QOL (Casas et al., 2013; Savahl et al., 2015).

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Table 1

Demographic and Placement-Related Descriptives for the Study Sample (N = 271)

Variables	N (%)
Gender	
Boys	137 (50.6%)
Girls	134 (49.4%)
Age in years (mean, SD, range)	15.43 (*SD* = 1.73), 12-18
Age categories	
12 – 13	43 (15.8%)
14 – 15	86 (31.7%)
16 – 17	115 (42.5%)
18	27 (10%)
Current living situation	
Residential care	188 (69.4%)
With biological parent(s)	68 (25.1%)
With extended family (*kinship*)	5 (1.8%)
With foster parent(s)	6 (2.2%)
Alone	3 (1.1%)
Other (i.e., with friends)	1 (0.4%)
Sector	
YW – private organizations [a]	164 (60.5%)
YW – secure care	37 (13.7%)
VAPH [b]	70 (25.8%)
Age at entry in years (mean, SD, range)	9.35 (*SD* = 4.32), <1 - 17
Length in care in years (mean, SD, range)	6.11 (*SD* = 4.40), <1 – 18
Length in care (categories)	
Less than 6m	15 (5.5%)
6m – <1y	18 (6.6%)
1y – <2y	25 (9.2%)
2y – <5y	63 (23.3%)
More than 5y	121 (44.7%)
Don’t know	29 (10.7%)

[a] Residential and non-residential organizations for Youth Care

[b] Residential organizations for youngsters with emotional and behavioral disorders within the Flemish Agency for Persons with Disabilities (VAPH).

Table 2
Descriptives of the QOL Outcome Domains of the QOLYSS.

	N	Mean	SD	Skewness	Kurtosis	Low QOL
Interpersonal relations	265	7.46	1.31	-0.38	-0.42	4.9%
Personal development	265	7.95	1.38	-0.78	0.23	3.8%
Material well-being	266	7.97	1.50	-0.79	0.01	4.1%
Emotional well-being	258	7.17	1.91	-0.70	-0.32	16.3%
Physical well-being	266	7.29	1.58	-0.45	-0.36	9%
Rights	248	7.51	1.71	-0.83	.10	9.7%
Self-determination	258	8.19	1.30	-0.76	0.29	2.7%
Social inclusion	246	7.60	1.68	-0.73	-0.17	10.2%
Total	220	7.68	1.25	-0.42	-0.49	3.2%

Note. Low QOL represents the proportion of youngsters with a mean domain score lower than 5.

Table 3
Independent-Samples Mann-Whitney U-test of Median Differences Between Girls and Boys.

	Girls			Boys			Mann-Whitney		
	N	Mean	SD	N	Mean	SD	U stat.	*p*	*r*
Interpersonal relations	134	7.17	1.28	131	7.75	1.28	6505.00*	<.001	.22
Personal development	133	7.77	1.37	132	8.14	1.37	7229.50	.013	
Material well-being	134	7.76	1.40	132	8.19	1.58	6887.00*	.002	.19
Emotional well-being	127	6.54	1.94	131	7.79	1.68	5077.50*	<.001	.34
Physical well-being	132	6.75	1.61	134	7.82	1.36	5530.50*	<.001	.23
Rights	117	7.52	1.56	131	7.88	1.81	6306.50	.016	
Self-determination	127	8.04	1.32	131	8.34	1.27	7162.50	.053	
Social inclusion	121	7.25	1.71	125	7.94	1.59	5542.50*	<.001	.15
Total	106	7.32	1.21	114	8.02	1.19	4043.50*	<.001	.29

Note. Degrees of freedom of Mann-Whitney U-test = 1; * = significant at the <.0056 level (2-tailed with familywise Bonferroni correction (0.05/9)).

Effect size for significant differences was calculated using the formula: $r = z/\sqrt{N}$

Table 4
Independent-Samples Mann-Whitney U-test of Median Differences for Type of Setting.

	Residential			Home-based			Mann-Whitney		
	N	Mean	SD	N	Mean	SD	U stat.	*p*	*r*
Interpersonal relations	185	7.29	1.26	80	7.84	1.35	5524.50*	.001	-.20
Personal development	186	7.88	1.33	79	8.13	1.49	6276.00	.060	
Material well-being	184	7.85	1.46	82	8.25	1.57	6117.50	.014	
Emotional well-being	177	6.90	1.93	81	7.77	1.75	5084.00*	<.001	-.23
Physical well-being	185	7.08	1.60	81	7.75	1.42	5549.00*	.001	-.21
Rights	174	7.62	1.61	74	7.92	1.90	5407.00	.046	
Self-determination	179	8.13	1.24	79	8.34	1.42	6080.50	.073	
Social inclusion	169	7.45	1.64	77	7.93	1.74	5158.50	.009	
Total	152	7.57	1.20	68	7.94	1.32	4185.50	.024	

Note. Degrees of freedom of Mann-Whitney U-test = 1; * = significant at the <.0056 level (2-tailed with familywise Bonferroni correction (0.05/9)).

Effect size for significant differences was calculated using the formula: $r = z/\sqrt{N}$

Table 5

Fine-Grained Item-Level Analyses for QOL Domains with Significant Between-Group Differences (Mann-Whitney U Test)

	Girls		Boys			Residential		Home-based		
	M	SD	M	SD	*r*	M	SD	M	SD	*r*
Interpersonal relations										
I like the people I live with	4.41	1.39	4.94	1.17	-.20	4.49	1.29	5.11	1.25	-.27
I trust others	3.25	1.33	4.01	1.30	-.27	3.45	1.39	4.04	1.24	-.19
Adults understand me	3.81	1.40	4.33	1.34	-.20	n.s.		n.s.		
Material well-being										
I am satisfied with the place(s) where I live	3.83	1.75	4.45	1.70	-.20	3.83	1.75	4.83	1.55	-.29
I have enough opportunities to do things outdoors	4.16	1.57	4.77	1.59	-.23	n.s		n.s		
I am satisfied with my current living situation	3.74	1.77	4.38	1.60	-.18	3.77	1.75	4.72	1.44	-.32
Emotional well-being										
I am satisfied with the way I look	3.55	1.82	4.56	1.47	-.28	n.s.		n.s.		
I feel useful to others	3.88	1.64	4.67	1.37	-.25	n.s.		n.s.		
I feel good about my future	n.s.		n.s.			4.22	1.52	4.80	1.32	-.19
I feel safe	4.29	1.51	4.90	1.33	-.23	4.43	1.49	4.99	1.28	-.19
I express how I feel to others	3.54	1.66	4.21	1.64	-.21	n.s;		n.s.		
I can cope with difficulties in my life	4.35	1.66	4.89	1.19	-.22	4.45	1.39	5.01	.99	-.19
I am proud of the things I do	4.18	1.49	4.78	1.38	-.22	n.s.		n.s.		
I enjoy my life	4.03	1.65	4.67	1.42	-.20	n.s.		n.s.		
I feel good about myself	3.50	1.70	4.65	1.40	-.34	3.85	1.67	4.59	1.51	-.21
Physical well-being										
I feel fit	3.85	1.59	4.84	1.24	-.33	4.17	1.50	4.75	1.43	-.20
I feel good when I wake up in the morning	3.19	1.61	4.14	1.52	-.29	3.44	1.59	4.2	1.61	-.23
I feel physically well	3.76	1.62	4.92	1.17	-.38	n.s.		n.s.		
I have good eating habits	3.82	1.66	4.53	1.46	-.22	3.98	1.64	4.63	1.41	-.18
I can cope with pain or discomfort	3.83	1.60	4.63	1.38	-.26	n.s.		n.s.		
Social inclusion										
I feel accepted by others	4.41	1.37	4.96	1.19	-.22	4.55	1.32	4.99	1.26	-.18
I feel that I belong somewhere	4.15	1.55	4.86	1.29	-.24	n.s.		n.s.		
I feel that I am important to other people	4.14	1.63	4.82	1.31	-.22	n.s.		n.s.		
I am satisfied with my neighborhood	4.37	1.69	4.93	1.43	-.18	4.46	1.66	5.08	1.33	-.18

Table 6

Correlations Between the Continuous Demographic and Placement-Related Variables and QOL Outcomes.

	Age^2	Age at entry^2	Years in care^2
Interpersonal relations	-.18*	.04	-.10
Personal development	-.21*	-.04	-.03
Material well-being	-.06	.02	-.04
Emotional well-being	-.17*	.03	-.08
Physical well-being	-.14	.02	-.07
Rights	-.10	-.01	-.07
Self-determination	-.07	.05	-.07
Social inclusion	-.15	.02	-.06
Total	-.16	-.02	-.04

Note. Based on spearman's Rank Correlation coefficient; *Significant at the <.01 level (2-tailed with Bonferroni correction).

Table 7

Multiple Regressions of Demographic and Placement-Related Factors on QOL Outcomes

	Gender		Age		Type of setting			
	β	sr^2	β	sr^2	β	sr^2	Adjusted R^2	F
Interpersonal relations	.19**	.03	-.16*	.02	-.13**	.02	.09	9.14***
Personal development			-.20***	.04			.04	10.85***
Material well-being	.14*	.02					.02	5.58*
Emotional well-being	.30***	.09	-.12*	.01	-.13*	.02	.13	14.20***
Physical well-being	.31***	.09			-.13*	.02	.12	19.76***
Social inclusion	.21***	.04					.04	10.87***
Total	.28**	.08					.08	18.80***

Note. * $p < .05$; ** $p < .01$; *** $p < .001$