

The Impact of Place Attachment and Coping on the Quality of Life of Jewish and Druze Children in Israel

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The paper reports a study which deals with the impact of place attachment and coping on the quality of life of children and adolescents. The purpose was to construct and test a model in which place attachment and coping are the predictors and quality of life the dependent variable. Both predictors were expected to impact quality of life positively. The participants were 5,392 children, differing in ethnicity (5,072 Jewish and 320 Druze), gender (2,153 males and 2,856 females) and age (2,084 in elementary schools, 1,499 in middle schools, and 1,468 in high schools). They were administered The Children's Quality of Life (CH-QOL) questionnaire (S. Kreitler & M. Kreitler), The Place Attachment Questionnaire (Billig) and the Multidimensional coping questionnaire (Kreitler). Confirmatory factor analyses provided measurement models of quality of life with 15 scales, place attachment with three factors (affective, cognitive, and behavioral) and coping with two factors (activity and optimism). Structural equation modeling yielded a model showing the independent impacts of place attachment and coping on quality of life, which was found to be adequate also in each of the 7 study samples. The impact of coping on quality of life was stronger than of place attachment. Comparison of regression weights showed differences mainly between boys and girls, some between the age groups and actually none between the ethnic groups.

Keywords: quality of life, place attachment, coping, Druze, gender, age, structural equation modeling

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Introduction

The present paper deals with the impact of place attachment and coping on the quality of life (QOL) of children and adolescents.

Place Attachment

Place attachment (PA) refers to the long-term bonding that occurs between individuals and meaningful places in their lives (Scannell & Gifford, 2010a). It may be manifested in the tendency to maintain physical proximity to the place, so that when people are separated from their important places they experience distress and when they are reunited with them they have positive feelings. Most of the PA research is devoted to the places of residence, but some studies deal with PA within different ranges (house, neighborhood, city, region, country etc.) (Hidalgo & Hernández, 2001; Lewicka, 2011), or other categories of places, such as vocational recreational places, or sacred sites (Kyle, Graefe, & Manning, 2005). PA is a multidimensional construct (e.g., Scannell & Gifford, 2010a; Hidalgo & Hernandez, 2001), including dimensions concerning place, such as dependence (Stokols & Shumacker, 1981), identity (Prohansky, 1978), affect (Kals & Maes, 2002), social bonding (Scannell & Gifford, 2010a, 2010b) and satisfaction (Stedman, 2002). Scannell and Gifford's (2010a) tripartite model integrates the different PA aspects under three headings: person characteristics (on individual and group levels), psychological process (emotional, cognitive and behavioral) and the nature of the place itself (e.g., geographic range, physical or social spaces).

PA and Culture

A major component of PA is the meanings assigned to places (Ryan, 2005), such as dangerous, peaceful, sacred, restorative, interesting, or defined as important by religion or ideology (Billig, 2006, 2013). Meanings of places depend on the individual but are no less a function of culture. Thus, the meaning of green spaces ranges from agricultural property to recreational potential and physical activity, depending largely on the culture (Francis, Giles-Corti, Wood, & Knui-man, 2012). Further, since culture determines to a large extent the structuring of the environments in which people live, through architecture, parceling of space, privacy possibilities, or the available opportunities for community life (Macintyre, Ellay, & Cummins, 2002; Manzo & Perkins, 2006) it is likely that PA varies with culture (Harris, Brown, & Werner, 1996; Law & Altman, 1992; Pellow, 1992).

PA in Childhood and Adolescence.

PA develops gradually from early childhood. It starts with PA to limited regions, such as the home and expands to include broader geographical spaces, such as the street in which one lives, the city, the school and the surrounding natural environment, recreating a new balance between security and exploration with each expansion of PA (Lewicka, 2011). With time PA comes to include a variety of cognitions, feelings, and behaviors related to particular places (Chawla, 1992; Jack, 2010). The three major stages of the development of PA are focused on the family, nature and the outdoors, and social interactions, in early childhood, young age and adolescence, respectively (Sobel, 1993).

PA and Personality Characteristics

Various studies have clarified the role of PA in regard to self-identity, self-esteem and the sense of belongingness and security (Giuliani, 2003; Twigger-Ross & Uzzelli, 1996). A large survey found that place-attached persons, compared to non-attached ones, demonstrated a higher sense of coherence, were more

satisfied with their life overall, had a stronger bonding social capital and neighborhood ties, were more interested in their family roots, trusted people more, and were generally less egocentric (Lewicka, 2011). PA significantly predicted positive affect and fully mediated the association between it and housing quality (Evans, Kantrowitz, & Eshelman, 2001). Further, when individuals are attached to some place they tend to feel at home in it and to experience more stress reduction when they recreate there than elsewhere (Adevi & Grahn, 2011). In general, people feel attached to specific environments since these reduce stress and promote positive moods (Kyle, Graefe, Manning, & Bacon, 2004; Scopelliti & Giuliani, 2004). When people are in a place to which they feel attached they cope better with issues that relate to that space as well as with various daily difficulties (Bogdan, Rioux, & Negovan, 2011; Lowe & Cook, 2003; Tognolli, 2003). Moreover, in both adults (Lyon, 2014) and children (See below) PA is related to resilience in coping with difficulties, and even crises. The mentioned studies indicate that PA is related to personality tendencies which directly and indirectly enhance coping with difficulties in daily life.

PA and Quality of Life (QOL)

The beneficial effects of PA on coping and related personality characteristics render it likely that PA would be related to QOL. QOL refers to the individuals' perception of their functioning and well-being in different domains of life (Fayers & Machin, 2000), as evaluated in the context of their culture and value systems, and in relation to their goals, expectations, standards and concerns (WHOQOL Group, 1998). This definition has inspired the methodological approach to the assessment of QOL on the basis of the following six characteristics of QOL:

(a) it is subjective (vs objective); (b) it is phenomenological (vs explanatory); (c) it is multidimensional (vs unidimensional or homogeneous); (d) it is evaluative and experiential (vs factual and verifiable by others); (e) it is dynamic (vs static or unchanging); and (f) it is amenable to assessment or quantifiable (vs subject only to global impressionistic measures) (S. Kreitler & M. Kreitler, 2004, p. 141).

Studies show that different aspects of PA are related to various domains of physical and psychological QOL in adults (Brown & Perkins, 1992; Harris, Werner, Brown, & Ingebritsen, 1995; Stokols & Shumaker, 1982). Also in undergraduates PA was related to the sense of well-being in a new environment (Bogdan et al., 2011). In random samples of four different communities in Pennsylvania it was found that community attachment was a significant independent predictor of individual well-being (Theodori & Lullof, 2000). The scores on the residential attachment scale (Bonaiuto, Fornara, & Bonnes, 2006) was related to social well-being both in regard to a small-range place, i.e., the neighborhood (with an emphasis on the dimensions of actualization and integration), and a larger place, (i.e., the city) (all dimensions of social well being) (Rolero & De Piccoli, 2010). Residential attachment was also related to the four major dimensions of QOL assessed by the World Health Organization WHOQOL (physical health, psychological status, social relationships, and environment) in 343 participants in an urban environment of a big Italian city (Tartaglia, 2012). But another study with 344 adults found that residential attachment was not related to QOL (Gattino, De Piccoli, Fassio, & Rollero, 2013).

There are few studies that deal with the relations of PA to QOL in children. However, several studies of PA in young populations identified the role of PA in enhancing perceptions of safety, health, wellbeing, social abilities and social competencies (Albanesi, Cicognani, & Zani, 2007; Evans, 2007), and promoting individual, group, and cultural self-identity and self-esteem (Altman & Low, 1992; Hauge, 2007; Hay, 1998). Thus, PA

may function as a resilience factor against identity crises in periods of transitions, such as early adolescence (11-13 yrs) when children are freer to explore their neighborhood and become more people-centered than place-centered (Pretty, Chipuer, & Bramston, 2003; Dallago et al., 2009; Dallago, enzi, Perkins, & Santinello, 2012; Derr, 2002). In Italian adolescents PA was the link mediating between neighborhood opportunities (the availability of meeting places and activities) and prosocial behavior, enhanced by peer support (Lenzi, Vieno, Santinello, & Perkins, 2013).

The mentioned studies indicate that PA may have a beneficial effect on QOL in children. QOL is at least as important for children as for adults. Studies show that QOL in children may affect their motivation for studies and reduce conflicts between them and their parents (Kiliś-Pstrusińska et al., 2013). Moreover, there is evidence that QOL early in life affects the children's QOL (e.g., Wang, Sekine, Chen, Yamagami, & Kagamimori, 2008) and their adjustment to life in later years (Kiliś-Pstrusińska, et al., 2013). Hence, in order to safeguard and maintain an optimal level of QOL in children it is of paramount importance to identify factors affecting their QOL.

Objectives

The present study is based on integrating several important factors affecting QOL in children. The major predictors are PA and coping and the dependent variable is QOL. The study population is children representing groups differing in ethnicity, gender and age. The main hypothesis was that PA and coping would be related to QOL and would affect positively QOL of children in the different samples, defined by ethnicity, gender and age. Further, it was expected that the effects of PA and coping would be interrelated.

Method

Participants

The total number of participants was 5,392 children. They included 5,072 Jewish children and 320 Druze children, all living in Israel. The sample of Jewish children included 2,153 males and 2,856 females; 2,084 children in elementary schools (classes 1-6), 1,499 children in middle schools (classes 7-9) and 1,468 children in high schools.

Procedure

Data collection began after the study was approved by the ethics committee of the Tel Aviv University, and additionally got permission from the Head Scientist Office of the Israeli Ministry of Education. In a cross-sectional study, data was collected between years 2010-2012 in 38 schools in Israel, sampled across the major administrative regions of the country. Data collection lasted for 3 school years to secure a reasonable sample size for the study. The questionnaires were administered in the classrooms at the beginning of predetermined lessons. Research assistants provided an explanation of the instructions for filling the questionnaires and offered help when requested by the participants. Questionnaire completion lasted about 20 minutes. No payment or other rewards were offered to the participants. The total number of questionnaires that were filled and returned by the Jewish children was 5,111. After removal of the 39 questionnaires in which the percentage of missing values exceeded 7%, the number of questionnaires submitted for the main analysis was 5,072. Additional 320 participants from the Druze population were tested in a follow up study with the same instruments (Arabic version).

Tools

Three questionnaires were administered:

(1) The Children's Quality of Life (CH-QOL) questionnaire by S. Kreitler and M. Kreitler (2012) whose reliability and validity have been established in a previous study (Kreitler, Kreitler, & Alkalay, 2015). The CH-QOL has 55 items, each with three response alternatives presented both verbally ("very true", "true", "not true") and graphically (in the form of one, three, and six balls, respectively), assessing 15 scales: Family functioning, Cognitive functioning, Social functioning, Functioning at school, Fun, Basic Needs, Physical state, Mastery and independence, Worries, Stress, Positive feelings, Negative feelings, Body image, Self esteem and Motivation.

(2) The Place Attachment Questionnaire (PAQ), previously developed and validated by Billig (2006), was employed to measure the participants' attachment to their place of residence. The test was adapted for the use with children and the original 5-point Likert scale was replaced by three response options, identical to those used in the CH-QOL questionnaire. The PAQ includes statements, such as "I think that the place I live in is a good place to live in". "I am proud of the place I live in", "When I grow up I would like to live in the place in which I live now". With a total of 12 items, the PAQ has shown previously a three factor structure, which correspond to the three major dimensions of PA that have been identified in previous PA research (Altman & Low, 1992): affective (4 items), behavioral (4 items), and cognitive (4 items). The following items exemplify the three factors, respectively: "I love the house in which I live", "I am prepared to do things for the settlement in which I live", and "I think that the place in which I live is unique because of the people who live there".

(3) The Multidimensional Coping Questionnaire (COQ), developed and validated by Kreitler (2005) was employed for assessing the participants' coping profile. The questionnaire was adapted for use with children and the 5-point scale used in the version for adults was replaced by three response options, identical to those used in the CH-QOL and PAQ questionnaires. The COQ included 13 items, assessing active coping and optimism, by statements, such as "When there are difficulties and problems, I think of possible solutions", "When there are difficulties and problems, I try to be as happy as possible", representing the two factors, respectively.

Procedure

The study was approved by the Helsinki ethics committee of Tel-Aviv University and by the Chief Scientist of the Ministry of Education in the Israeli government. The three questionnaires were combined so that they were presented to the children in one sequence, randomly ordered for different groups of children, so that the CH-QOL was in some cases placed first, in some second and in some third. Each questionnaire was preceded by a short title stating the theme of the questions, namely, quality of life, the place in which you live, and what you do when there are sometimes difficulties and problems. The combined verbal and graphic form of the response options was used in order to facilitate the children's task of responding to the questionnaires. The questionnaires were administered in classrooms, in the presence of research assistants, in schools selected to represent different regions of the country. Responding to the questionnaires lasted 20-35 minutes. The research assistants explained the instructions and helped the children when requested by them.

Questionnaires in which more than 5% of the questions were not answered were omitted from the pool of

data (n = 27), in regard to the rest of the questionnaires.

Data Analysis

Descriptive statistics were calculated using SPSS version 22.0. Confirmatory factor analyses were performed for testing the study measurement models. Structural equation modeling was carried out using the AMOS software version 19.0 (maximum-likelihood method). Two dimensions of indices were employed to examine the overall model fit of the proposed model in this study. These indices were absolute fit measures, and relative fit measures. Since the absolute fit measure based on the chi square is sensitive to sample size, it was complemented by further standard indices for making an overall judgment (Hair et al., 2006).

A Multiple Groups Moderation analysis was performed by means of the critical ratio difference test of Z-scores obtained from the output of critical ratio of differences in AMOS imported in Stats Tools Packages (STP).

For addressing the issue of missing values we employed the full information maximum likelihood (FIML) procedure (Allison, 2012). The model was first fitted using maximum likelihood. After that, model parameters were set equal to their maximum likelihood estimates and linear regression was used to predict the unobserved values for each case as a linear combination of the observed values for that same case. Predicted values were then plugged in for the missing values.

Results

Confirmatory Factor Analyses

Each of the three major tools of the study was subjected to a confirmatory factor analysis. Figure 1 presents the results for PA. The sample size was 5,072. The model fit indices were the following: $\chi^2 = 936.479$; $\chi^2/df = 19.510$; comparative fit index (CFI) = 0.954, the Tucker-Lewis fit index (TLI) = 0.937, and the RMSEA = 0.060. These values indicate a good fit between the model and the observed data. The model for PA shows three factors which may be labelled as representing the cognitive, the feeling (affective) and behavioral aspects of PA. All three factors are related directly to the common latent construct of PA. There are some correlations between items that belong to different factors (see also Table 1).

Table 1 shows that in line with the estimates of the standard regression weights the strongest relation between the factors and the latent PA construct is in regard to the cognitive factor, followed by the behavioral and affective ones. Further, of the different items loaded on the factors, for the cognitive factor the strongest relation is with the item (no. 13) "I am sure that the settlement in which I live is a good place to live in"; for the behavioral factor, the strongest relation is for the item (no.7) "I am prepared to do things for the settlement in which I live"; and for the affective factor the strongest relation is with the item (No. 11) "I enjoy the beauty of the place in which I live".

Figure 2 presents the results of the confirmatory factor analysis for coping. The sample size was 5,072. The model fit indices were the following: $\chi^2 = 469.3$; $\chi^2/df = 18.772$; comparative fit index (CFI) = 0.931, the Tucker-Lewis fit index (TLI) = 0.931, and the RMSEA = 0.059. These values indicate a good fit between the model and the observed data. The model for coping shows two major factors which may be labelled as representing optimism and active coping. Both are connected directly to the underlying latent construct of coping. The items of the two factors are not correlated (see also Table 1).

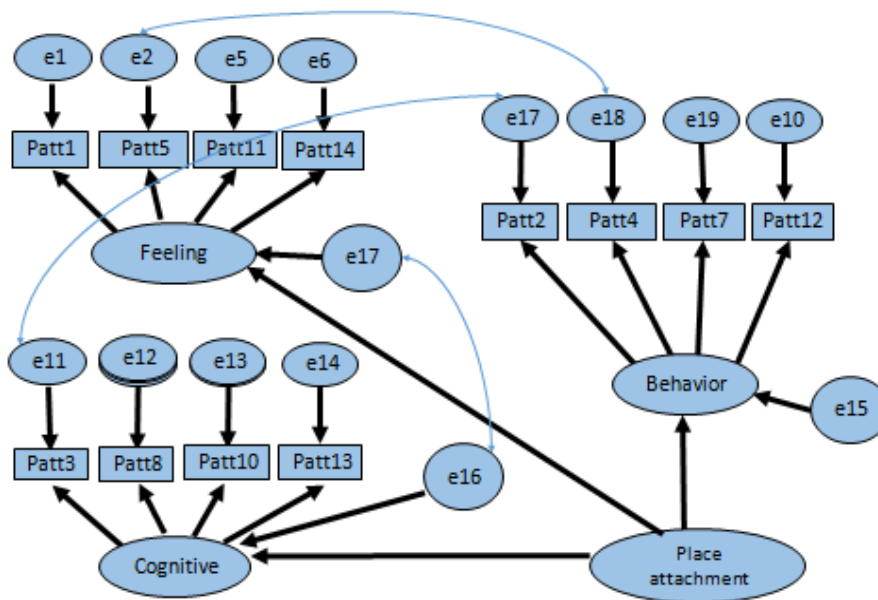


Figure 1. Measurement model—Place Attachment.

$\chi^2(48) = 936.479; p = 0.000; \chi^2/df = 19.510; NFI = 0.952; CFI = 0.954; TLI = 0.937; RMSEA = 0.060.$

Table 1

Measurement Model Factor Loadings (Estimates of Standardized Regression Weights) for Place Attachment, Coping and Quality of Life Questionnaires

Place attachment			Coping			Quality of life	
Variables	Factors	Factor Loadings	Variables	Factors	Factor loadings	Scales	Factor loadings
Behavior	Place Attach	0.912	Optimism	Coping	0.972	Family	0.456
Cognitive	Place Attach	0.916	Active	Coping	0.975	Fun	0.400
Feeling	Place Attach	0.864	5. Happy	Optimism	0.636	Basic needs	0.699
1. Pride	Feeling	0.370	6. Faith	Optimism	0.484	Negative feelings	0.576
5. Liking	Feeling	0.620	7. Support	Optimism	0.515	Physical state	0.543
11. Beauty	Feeling	0.753	13. Optimism	Optimism	0.737	Mastery	0.578
14*.Change	Feeling	0.602	4. Solutions	Active	0.694	Cognitive	0.631
2. Active	Behavior	0.436	9. Duties	Active	0.494	Worries	0.324
4. Time	Behavior	0.545	10. Outcomes	Active	0.581	Positive feelings	0.620
7. Doing	Behavior	0.655	12. Improving	Active	0.794	School function.	0.494

(Table 1 continued)

Place attachment			Coping			Quality of life	
Variables	Factors	Factor Loadings	Variables	Factors	Factor loadings	Scales	Factor loadings
12. Interest	Behavior	0.795	11*. Helpless	Active	0.415	Body Image	0.480
3. Unique	Cognitive	0.443	—	—	—	Social function.	0.508
8. Contrib.	Cognitive	0.539	—	—	—	Stress	0.414
10. Import.	Cognitive	0.586	—	—	—	Self esteem	0.579
13. Good	Cognitive	0.822	—	—	—	Motivation	0.469
—	—	—	—	—	—	—	—

Note. The numbers in columns 1 and 4 indicate numbers of the items in the PA and Coping questionnaires, respectively. *The coding of the item is reversed.

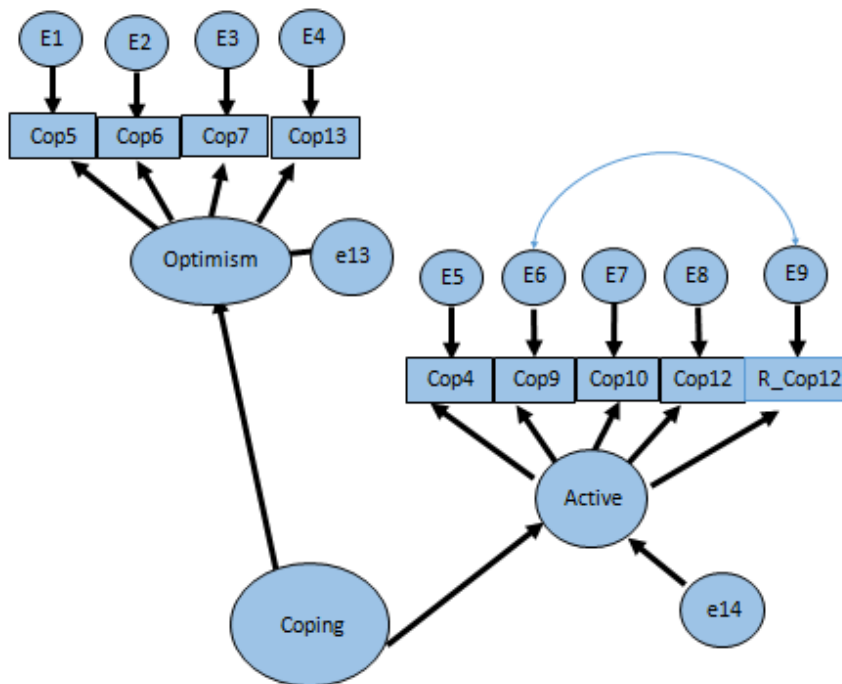


Figure 2. Measurement model—Coping.

$\chi^2(25) = 469.300; p = 0.000; \chi^2/df = 18.772; NFI = 0.960; CFI = 0.962; TLI = 0.931; RMSEA = 0.059.$

Table 1 shows that in line with the estimates of the standard regression weights the factor of active coping has a stronger relation to the latent construct of coping than the factor of optimism. Further, of the different items loaded on the factors, for the optimism factor the strongest relation is with the item (no. 13) “When there are difficulties and problems I always believe that everything will eventually be alright”; for the active factor,

the strongest relation is with the item (no. 4) “When there are difficulties an problems, I think about solutions for the situation”.

Figure 3 presents the results of the confirmatory factor analysis for QOL (S. Kreitler, M. Kreitler, & Alkalay, in press). The sample size was 5,072. The model fit indices were $\chi^2 = 1164.010$; $\chi^2/df = 15.117$; comparative fit index (CFI) = 0.948, the Tucker-Lewis fit index (TLI) = 0.929, and the RMSEA = 0.053. These values indicate a good fit between the model and the observed data. As previously reported (Kreitler, Kreitler & Alkalay, in press) the model for QOL shows that all 15 scales of QOL are connected directly to the underlying latent construct of QOL. Ten of the 15 scales are correlated also with each other. The three scales with the highest estimates of regression weights in regard to the latent construct of QOL are basic needs, cognitive functioning and positive feelings; those with the lowest regression weights are worries, stress and fun.

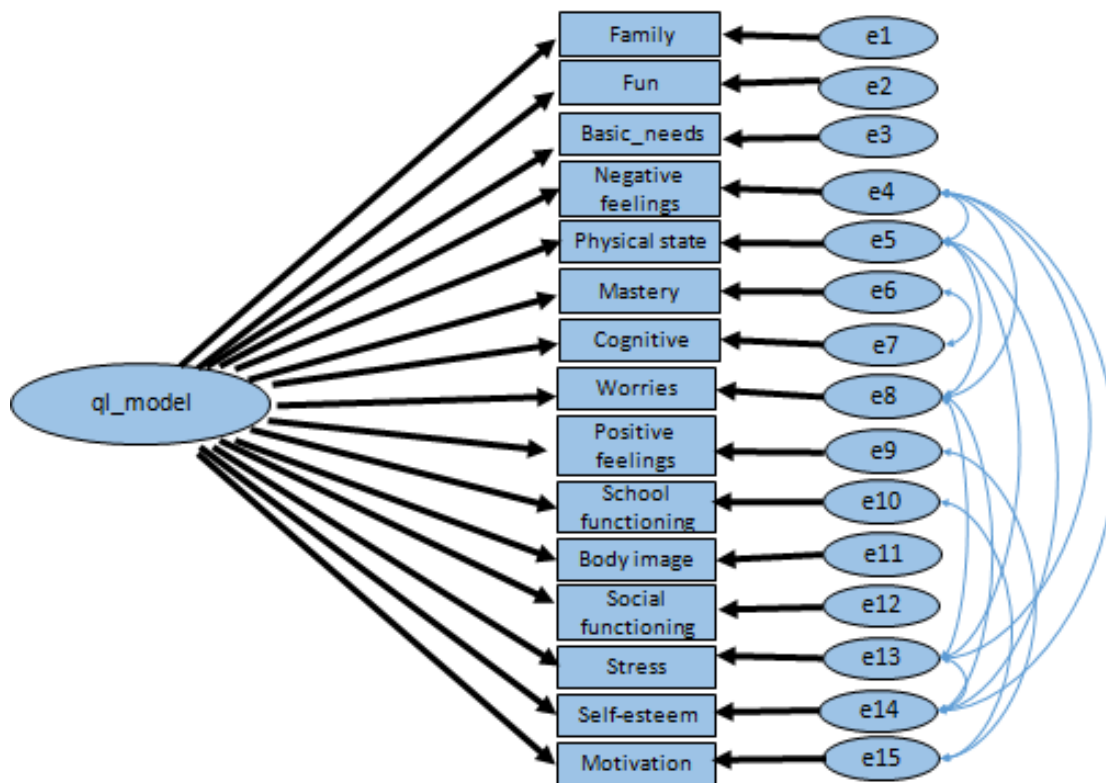


Figure3. Measurement model – Quality of life.

$\chi^2 (77) = 1164.010$; $p = .000$; $\chi^2/df = 15.117$; $NFI = 0.945$; $CFI = 0.948$; $TLI = 0.929$; $RMSEA = 0.053$.

Descriptive Statistics

Table 2 presents means, SDs and F values based on ANOVA statistics for the mean comparisons of PA, coping and QOL in groups defined by ethnicity, gender and age. The mean comparisons show that all differences were highly significant except for the PA factors of feeling and behavior. The significant differences showed that for the cognitive PA factor Jewish children scored higher than the Druze, but in all coping factors and QOL the Druze children scored higher. The comparisons between the gender groups showed that girls scored significantly higher than boys in the three factors of PA (affective, behavioral and cognitive)

and in the two factors of coping (optimism and active coping) but that in the overall QOL boys scored significantly higher than girls. In regard to the three age groups, the differences between the three groups are highly significant in regard to all assessed variables. The highest scores are for the elementary school children in regard to the affective factor of PA, and the optimism factor of coping, whereas in regard to all other variables—namely, the cognitive and behavioral factors of PA, the activity factor of coping and the overall QOL—the highest scores appear for the children in the middle school.

Table 2

Means, SDs and F Values Based on ANOVA for Place Attachment, Coping and Quality of Life in Groups Defined by Ethnicity, Gender and Age

		Ethnicity		Gender		Age group		
		Druze	Jew	Male	Female	Elementary school	Middle school	High school
N		320	5072	2153	2856	2084	1499	1468
Place attachment	Mean	2.390	2.406	2.327	2.472	2.464	2.448	2.288
	(SD)	(0.354)	(0.514)	(0.529)	(0.491)	(0.469)	(0.515)	(0.546)
Feeling	F	0.286		99.019***		58.384***		
Place attachment	Mean	2.083	2.239	2.122	2.330	2.182	2.306	2.253
	(SD)	(0.363)	(0.539)	(0.541)	(0.521)	(0.532)	(0.551)	(0.531)
Cognitive	F	25.860***		189.813***		23.943***		
Place attachment	Mean	2.256	2.270	2.194	2.331	2.307	2.318	2.174
	(SD)	(0.368)	(0.523)	(0.504)	(0.529)	(0.474)	(0.526)	(0.570)
Behavioral	F	0.229		86.062***		36.634***		
Coping Optimism	Mean	2.553	2.319	2.254	2.371	2.365	2.307	2.276
	(SD)	(0.387)	(0.511)	(0.523)	(0.492)	(0.477)	(0.512)	(0.543)
	F	64.745***		65.711***		14.119***		
Coping Active	Mean	2.513	2.310	2.259	2.352	2.358	2.315	2.244
	(SD)	(0.371)	(0.489)	(0.505)	(0.472)	(0.452)	(0.464)	(0.548)
	F	53.043***		44.333***		23.637***		
Quality of life	Mean	2.541	2.466	2.481	2.455	2.432	2.494	2.487
	(SD)	(0.191)	(0.229)	(0.231)	(0.226)	(0.246)	(0.225)	(0.200)
	F	32.251***		15.429***		40.651***		

Note. *** $p < 0.001$.

Figure 4 presents the structural model for the interrelations between coping, PA and QOL. The figure shows that both coping and PA affect QOL directly, each in independently of the other. Further, Figure 4 also shows that PA and coping are interrelated, which indicates that they may affect each other, in addition to affecting QOL.

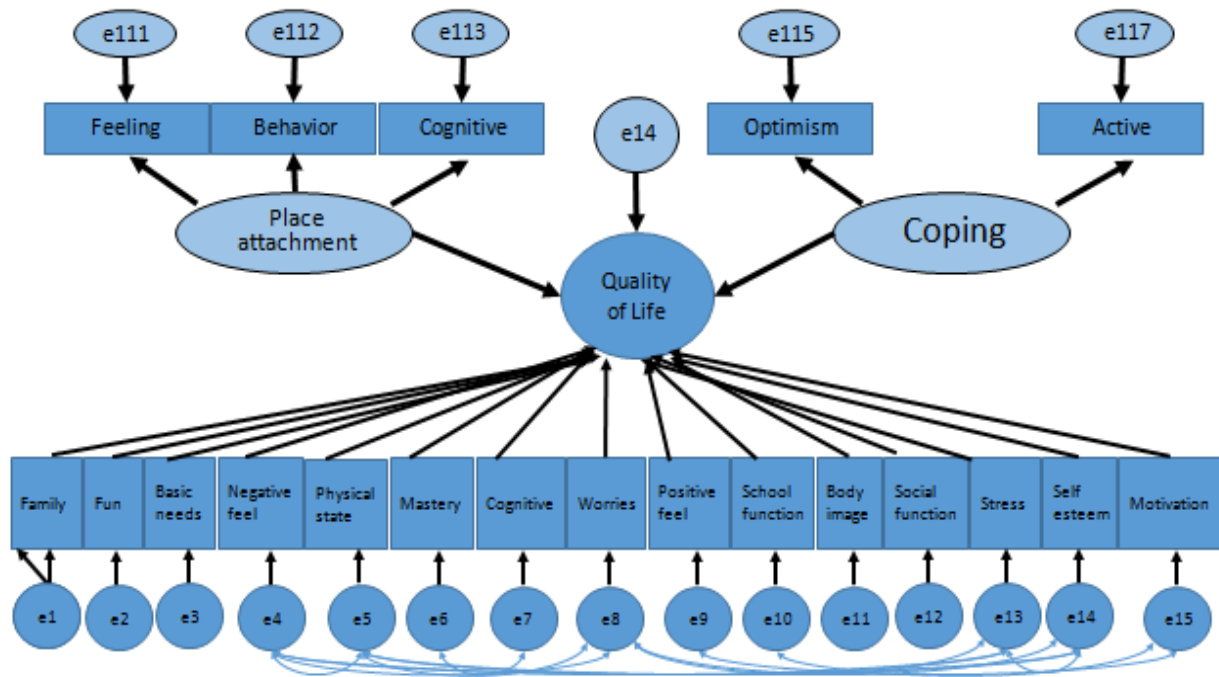


Figure 4. Structural model of the interrelations between coping, place attachment and quality of life.

$$\chi^2 (154) = 2178.925; p = 0.000; \chi^2/df = 14.149; NFI = 0.935; CFI = 0.939; RMSEA = 0.053.$$

Table 3 presents the model fit indices for the structural model shown in Figure 4. The first row shows the model fit indices for the group of Jewish children on the basis of which the model was constructed. The absolute fit measure based on the chi square suggested that the model is a good fit ($\chi^2 = 2178.925$, $N = 5,076$, $p = 0.00$). The relative chi-square (χ^2/df) equaled 14.149, which supports the conclusion of a good fit. This conclusion is further enhanced by the RMSEA (0.051), NFI (0.939) and CFI (0.935) indices which indicate an acceptable-to-good fit.

Table 3

Structural Model Fit Indices

	χ^2	DF	p	χ^2/df	CFI	NFI	RMSEA
Jewish	2178.925	154	0.000	14.149	0.939	0.935	0.051
Druze	265.123	154	0.000	1.722	0.924	0.840	0.048
Elementary school	1159.014	154	0.000	7.526	0.928	0.919	0.056
Middle school	924.886	154	0.000	6.006	0.929	0.917	0.058
High school	872.277	154	0.000	5.664	0.922	0.908	0.056
Male	1066.258	154	0.000	6.924	0.934	0.923	0.052
Female	1417.329	154	0.000	9.203	0.935	0.928	0.054

Table 3 presents in addition the model fit indices for each of the set of samples in the study: Druze children, children in the elementary school, children in the middle school, children in the high school, males and females. In each of these samples the same model was found to be fit and appropriate.

Table 4

Model Fit Indices for Group Comparisons of Structural Equation Modeling

	CMIN	DF	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Ethnicity: Jewish vs Druze	528.124	14	0.000	0.009	0.009	0.009	0.009
Gender: Males vs Females	272.031	14	0.000	0.006	0.006	0.006	0.006
Elementary school vs middle school	77.049	14	0.000	0.003	0.003	0.002	0.002
Elementary school vs high school	65.552	14	0.000	0.003	0.003	0.001	0.001
Middle school vs high school	145.380	14	0.000	0.010	0.010	0.009	0.009

Table 4 presents the model fit indices for group comparisons. The comparisons provide information about the overall similarity between the pairs of models that are compared. The results in Table 4 show that the overall differences between the models for each of the following pairs of samples were highly significant: Jews and Druze, males and females, elementary school children and middle school children, elementary school children and high school children, middle school children and high school children.

The question of the relative strength of the relation PA and coping to QOL was examined by comparing first two constructed models: one which does not impose equality between the impact of PA and coping and another model which does impose equality. The results were as follows: DF = 2, CMIN = 9.980, $p = 0.007$, NFI [Delta-1] = 0.000, IFI [Delta-2] = 0.000, RFI [rho-1] = -0.001, TLI [rho2] = -0.001. Since the χ^2 value is significant it is evident that the impacts of PA and coping are not equal. The standardized regression weights for PA and coping are $B = 0.350$ and $B = 0.218$, respectively (see Table 5). This indicates that the relation of coping to QOL is stronger than that of PA.

Table 6 presents the differences in z-scores between the three age groups in terms of school levels—elementary, middle and high school. The comparisons concerning the middle and elementary schools show that in comparison to the elementary school group, in the group of the middle school the relation of coping to QOL is weaker, the relation of the activity factor to the construct of coping is weaker, and the relations of the following scales to QOL are weaker: mastery, cognitive functioning, school functioning, social functioning and motivation, while the relation of stress to QOL is stronger than in the elementary school.

The comparisons concerning the high and elementary schools show that in comparison to the elementary school group, in the high school the relation of PA and of coping to QOL is weaker, the relation of the behavioral and cognitive factors to PA is weaker, and the relations of the following scales to QOL are weaker: mastery, cognitive functioning, school functioning, social functioning, self esteem and motivation, while the relation of stress to QOL is stronger than in the elementary school.

The comparisons concerning the high and middle schools show that in comparison to the middle school group, in the high school the relation of coping to QOL is weaker, the relation of the behavioral and cognitive

factors to PA is weaker, but the relation of the activity factor to the construct of coping is stronger. There are no differences between the high and middle groups in the relation of the scales to the QOL construct except for the weaker relation of school functioning to QOL in high school as compared to middle school.

By way of summary, concerning age group comparisons, it appears that the impacts of PA and coping on QOL are strongest in elementary school children, lower in middle school and lowest in high school. The three age groups do not differ significantly in the relations of the feeling factor to PA, optimism to coping and positive as well as negative feelings to QOL. The age groups differ more in the cognitive and activity factors that tend to be higher in the middle and high school groups than in the elementary school children.

Table 5

Group Comparisons of Standardized Regression Weights for Ethnicity and Gender

Regression path			Ethnicity			Gender		
			B (standard.)		Z diff	B (standard.)		Z diff
			Druze	Jew		Male	Female	
QOL	<--	Place attachment	0.324**	0.218**	-1.802	0.207**	0.239**	1.51
QOL	<--	Coping factor	0.536**	0.350**	-1.894	0.267**	0.433**	3.743**
Feeling factor	<--	Place attachment	0.544	0.798		0.814	0.782	
Behavior factor	<--	Place attachment	0.641**	0.776**	-1.228	0.734**	0.793**	6.158**
Cognitive factor	<--	Place attachment	0.512**	0.781**	0.369	0.723***	0.814**	4.984**
Optimism factor	<--	Coping factor	0.760	0.810		0.775	0.819	
Active factor	<--	Coping factor	0.772**	0.843**	0.254	0.842**	0.852**	
Family	<--	QOL	0.390	0.470		0.455	0.483	
Fun	<--	QOL	0.291**	0.406**	1.044	0.419**	0.415**	-2.897**
Basic needs	<--	QOL	0.684**	0.699**	-0.055	0.707**	0.689**	-0.38
Negative feelings	<--	QOL	0.677**	0.571**	-1.357	0.554**	0.615**	2.784**
Physical state	<--	QOL	0.422**	0.533**	0.514	0.515**	0.571**	-2.089*
Mastery	<--	QOL	0.519**	0.568**	-0.003	0.606**	0.555**	-6.045**
Cognitive functioning	<--	QOL	0.530**	0.626**	0.997	0.659**	0.606**	7.047**
Worries	<--	QOL	0.384**	0.310**	-1.078	0.255**	0.371**	-5.721**
Positive feelings	<--	QOL	0.500**	0.632**	0.597	0.615**	0.643**	4.967**
School functioning	<--	QOL	0.504**	0.492**	-0.377	0.499**	0.480**	-6.323**
Body image	<--	QOL	0.392**	0.483**	0.714	0.486**	0.480**	-4.13**
Social	<--	QOL	0.429**	0.505**	1.010	0.510**	0.502**	2.391*
Stress	<--	QOL	0.534**	0.409**	-1.862	0.363**	0.458**	-1.967*
Self esteem	<--	QOL	0.418**	0.568**	2.626**	0.547**	0.593**	1.484
Motivation	<--	QOL	0.382**	0.476**	0.737	0.510**	0.480**	-4.13**

Notes. ** p -value < 0.01; * p -value < 0.05. Z-score comparisons were done in terms of regression weights.

Table 6

Group Comparisons of Standardized Regression Weights for the Three Age Groups: Elementary School, Middle School, High School

Regression path			B (standard.)			Multigroup	Comparisons Z-score):	
			Elementary school	Middle school	High school		Middle school vs. elementary school	High school vs. elementary school
QOL	<--	Place attachment	0.238**	0.233**	0.158**	-1.088	-3.265**	-2.21*
QOL	<--	Coping factor	0.495**	0.411**	0.237**	-3.036**	-6.623**	-3.657**
Feeling factor	<--	Place attachment	0.713	0.802	0.883			
Behavior factor	<--	Place attachment	0.750**	0.791**	0.772**	-0.977	-3.098**	-2.261*
Cognitive factor	<--	Place attachment	0.749**	0.841**	0.811**	-1.115	-5.906**	-5.399**
Optimism factor	<--	Coping factor	0.743	0.840	0.835			
Active factor	<--	Coping factor	0.834**	0.833**	0.868**	-3.21**	-0.228	3.08**
Family	<--	QOL	0.508	0.497	0.445			
Fun	<--	QOL	0.505**	0.440**	0.368**	-0.643	0.236	0.705
Basic needs	<--	QOL	0.712**	0.696**	0.656**	-1.198	-0.102	0.874
Neg. feelings	<--	QOL	0.567**	0.660**	0.469**	1.589	-0.429	-1.705
Physical state	<--	QOL	0.504**	0.597**	0.474**	0.488	-0.546	-0.938
Mastery	<--	QOL	0.616**	0.555**	0.483**	-2.607**	-2.668**	-0.319
Cognitive	<--	QOL	0.692**	0.573**	0.535**	-3.772**	-3.107**	0.256
Worries	<--	QOL	0.255**	0.407**	0.283**	3.277**	1.464	-1.324
Positive feelings	<--	QOL	0.629**	0.660**	0.591**	-1.411	-0.992	0.234
School funct.	<--	QOL	0.555**	0.465**	0.337**	-3.443**	-5.282**	-2.008*
Body image	<--	QOL	0.492**	0.503**	0.485**	-0.517	0.486	0.891
Social	<--	QOL	0.545**	0.464**	0.436**	-3.251**	-2.504*	0.394
Stress	<--	QOL	0.326**	0.503**	0.435**	3.175**	2.793**	0.036
Self esteem	<--	QOL	0.543**	0.628**	0.486**	-0.814	-1.988*	-1.223
Motivation	<--	QOL	0.479**	0.451**	0.444**	-3.788**	-2.837**	0.629

Notes. ** $p < 0.01$, * $p < 0.05$. Z-score comparisons were done in terms of regression weights.

Discussion

A major part of the study focuses on examining the constructs of PA and coping and their relations to QOL. For this purpose it was first necessary to analyze the components of PA and coping as has been done previously concerning QOL (S. Kreitler, M. Kreitler & Alkalay, in press). A measurement model applied in regard to QOL showed that 15 different scales were all related directly to the latent construct of QOL (Fig. 3, Table 1). Notably all these scales represented a rich variety of aspects of the life of children, such as basic needs, sense of mastery, social functioning, fun and positive feelings. Model fit indices fully supported the

model. In the present study measurement models were applied in regard to the constructs of PA and coping. Concerning PA it was shown that its three components are affective, cognitive and behavioral (Fig. 1, Table 1). This finding is in accord with previous findings concerning PA which emphasized the personal or psychological aspect of PA (e.g., Scannell & Gifford, 2010a). Our findings showed that these three factors were related directly to the latent construct of PA. The strongest relation was for the cognitive factor, which indicates the potential for modifying PA in the directions of enhancement or moderation by cognitive means. Since there are some relations between items belonging to the different factors it is likely that the modifications would spread to these other factors too.

Concerning coping, our findings showed two major components labelled active coping and optimism (Fig. 2, Table 1). These factors were related directly to the latent construct of coping. In terms of the content of items it is likely that the activity factor represents the behavioral aspect whereas optimism is rather the affective one. The two factors are independent with no relations between the respective items. Notably, the activity factor was related to coping more strongly than optimism. Both factors have been studied previously in the framework of coping and have been identified by different names, such as active coping or problem-focused coping versus hope or optimism or emotion-focused coping (Lazarus & Folkman, 1984; Snyder, 1994).

The major phase of the study consisted in integrating the three constructs of PA, coping and QOL in the form of the structural equation model (Fig. 4). The model shows that both PA and coping affect QOL directly, each independently. The effect is focused on the latent construct of QOL. The model has been supported satisfactorily by all standard indices. The validity of the model has been further confirmed by the finding that the same model, which was constructed on the basis of the sample of Jewish children, fits adequately also each of the specific samples in the study, i.e., Druze children, boys, girls, and each of the three age groups (viz. children in the elementary school, in the middle school and in the high school) (Table 3).

The structural model shows that though PA and coping affect QOL directly and independently they are interrelated, which indicates that they may interact and that one may affect the other. A special test by structural modelling showed that structural model in which equality of effects of coping and PA was imposed differed significantly from the one in which no such equality was imposed, which indicated a difference in the impacts of PA and coping. Standardized regression weights confirmed that coping had a stronger effect on QOL than PA. This indicates that in this context QOL reflects the impact of coping to a greater extent than PA as such.

The findings of the study show that despite the adequacy of the structural model for representing the data in different samples, the model also reflects the differences between the samples. This conclusion is based first on the significant results yielded by the overall comparisons between the models in two pairs of samples (viz. Jews and Druze, boys and girls, elementary school and middle school, elementary school and high school, middle school and high school) (Table 4). Secondly, the conclusion is based on the results of comparisons between regression weights in the different samples (Tables 5 and 6). The largest number of significant differences were found for the comparison between boys and girls (Table 5). Thus, girls differed from boys in manifesting stronger relations than boys in the following cases: of coping to QOL, of the behavioral and cognitive factors to PA, and of positive feelings, negative feelings, cognitive functioning and social functioning to QOL. In contrast, boys manifested stronger relations than girls in regard to the relations of the following scales to QOL: fun, physical state, mastery, worries, school functioning, body image, stress and motivation.

These findings indicate clearly that the genders differ significantly in the factors that affect their QOL. This conclusion gains in importance when considered in conjunction with the finding (Table 2) that in terms of mean values, boys scored lower than girls in the three PA factors and in the two coping factors but scored higher than girls in overall QOL. One notable implication of these findings is that in girls QOL is impacted more by feelings, both negative and positive, while in boys QOL is impacted rather by worries, stress, and physical state. Concerning coping and PA, in girls both coping and PA are stronger and coping affects QOL more than in boys. The reported results correspond to gender differences in emotions found by others. Thus, a recent meta-analysis found that girls have more positive feelings than boys (Chaplin & Aldao, 2013) and there is growing evidence that girls and boys process emotions differently. For example, under stress boys rely more on the 'fight and flight' mechanism, while girls invest in maintain and applying interpersonal relations that involve increased coping efforts (Taylor, 2003).

Concerning age differences the overall trend of the findings shows that the strongest relations of coping and PA to QOL are in the elementary group children, followed by the middle school and high school (Table 6). This finding emphasizes the importance of considering coping and PA especially in the youngest children, without overlooking the older ones. Further, it is of particular interest that the age groups do not differ in all the affective factors, in regard to all three assessed constructs of PA, coping and QOL. Affect is as important in elementary school children as in the oldest ones. The relation of the activity and behavioral factors to coping and PA respectively tends to be higher in the older children whose physical, cognitive and emotional development renders them more independent so that they have more freedom of ability, and are better able to engage in activities also outside home (Lerner, Petersen, & Brooks-Gunn, 1991). In all age groups QOL is related to the relatively highest degree to the scales of basic needs and cognitive functioning, and in middle and high school also to the feeling scales. Finally it appears that in all age groups coping affects QOL more than PA. This is probably due to the fact that the range of impact exercised by coping is larger than that of PA.

Finally, it is of special interest to note that the Jewish and Druze samples were highly similar in their responses in this study (Table 5). There were no significant differences between these two samples in the relation of the PA and coping constructs to their constitutive factors or in their relations to QOL. Neither were there any differences in the relation of 14 of the 15 scales to QOL. These findings are in accord with the evidence that the Druze in Israel consider themselves as integral parts of the population at large (Kaufman, 2004). Moreover, there has been no indication that the belief of the Druze in reincarnation (Dwairy, 2009) has affected their place attachment to the real-life territories in which they live.

In sum, the gender samples manifested the largest number of differences in the PA, coping and QOL constructs and in the relations of PA and coping with QOL. There were practically no differences in these respects between the Jewish and Druze sample. The differences of medium degree were observed between the age groups, especially between the elementary school children and the older ones.

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