

# Factors influencing Health Related Quality of Life in children/adolescents with Growth Hormone Deficiency

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## Introduction

- Short stature has been reported to negatively affect children's quality of life.
- Limited data are available regarding the factors affecting the psychosocial functioning of children with growth hormone deficiency (GHD).

## Objective

- The evaluation of certain aspects of Health Related Quality of Life (HrQoL) of children with GHD, while controlling the effect of the degree of short stature, the duration of treatment and the sociodemographic characteristics of the patients.

## Methods

- 322 children/adolescents with a clinical diagnosis of GHD, treated with GH.
- Completion of the disease specific, Greek version, of the Quality of Life in Short Stature Youth (QoLISSY) questionnaire from children and parents.
- Mann-Whitney or Kruskal-Wallis whenever applicable and spearman's rho correlation coefficient for the evaluation of the associations between QoLISSY questionnaire and demographics.

## Results

- Concerning **gender** differences, results showed higher scores for coping efforts for girls ( $p=0.033$ ) compared to boys. According to parents, girls worry less about their future ( $p=0.042$ ) than boys.
- Younger** children self reported better coping efforts ( $p=0.012$ ) and better experiences regarding GH therapy ( $p=0.012$ ) than **adolescents**, whereas their parents rated their children lower in levels of Coping ( $p=0.003$ ).
- Higher **socioeconomic status** was positively correlated with children's HrQoL ( $p=0.049$ ).
- Regarding the **degree of short stature**, taller children/adolescents had better HrQoL on the scales Physical QoL ( $p_c=0.001$ ,  $p_p=0.002$ ), Social QoL ( $p_c=0.001$ ,  $p_p=0.009$ ), Emotional QoL ( $p_c=0.001$ ), Effects on parents ( $p_p=0.027$ ) and Total QoL ( $p_c=0.001$ ,  $p_p=0.007$ ), both self- and parent-reported.
- Older age at treatment initiation** was associated with more limitations on children's perceived Total HrQoL ( $p=0.001$ ).
- Longer duration of treatment** was associated with better self-report Total HrQoL ( $p=0.002$ ) and with Beliefs ( $p=0.029$ ) about stature.
- Children rated themselves as having higher HrQoL as compared to their parents.

## Conclusions

Patient-related factors such as gender, age, socioeconomic status and degree of short stature affect the psychosocial functioning of children with GHD. Furthermore, age at initiation and duration of GH treatment play an important role.

Parents report worse levels of HrQoL as compared to their children, possibly due to increased anxiety and/or expectations regarding their children.

## Demographics

		N	%
Gender	Boys	219	68
	Girls	103	32
Maternal educational level	<12 years	173	54
	>12 years	149	46
Paternal educational level	<12 years	183	56.9
	>12 years	139	43.1
Height SD	>-2.0 SDS	212	63.5
	≤-2.0 SDS	122	36.5
Residence	Rural	81	25,1
	Urban	241	74,9
Family Affluence Scale (FAS)	Low	13	3,9
	Medium	164	50,9
	High	145	45,2
Age (years), median range ±SD		13.1±2,5	
Duration of GH treatment (years), median range ±SD		3.4±2,6	

QoLISSY Domains	
3 QoL Core Domains	Physical
	Social
	Emotional
Predictor Domains	Coping
	Beliefs
	Treatment
Parent additional Domains	Parents: Future
	Parents: Effects on parents

Short Stature

Quality of Life

