



# The Impact of Trigger Finger on Quality of Life, Activity, Participation and Hand Function



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## INTRODUCTION

Trigger finger is a common hand disease in adulthood. The literature describes the symptoms of TF with little reference to the broader consequences of the disease.

## OBJECTIVES

- To evaluate the impact of TF on motor function, activity and participation (A&P), and quality of life (QOL)
- To evaluate the possible correlations between personal factors and body functions with activity and participation and with quality of life

## METHOD

The severity of TF was graded by hand surgeons. The hand function assessments and questionnaires were administered by experienced occupational therapists to participants immediately after their visit with the doctor

### Instruments

Disabilities of Arm Shoulder and Hand questionnaire (DASH); World Health Organization Quality of Life questionnaire (WHOQOL-Bref); Functional Dexterity Test (FDT); Purdue Pegboard Test (PPT); Jamar Dynamometer (JD) & Pinch Gauge (PG)

A principal components factor analysis was conducted for: 1) all subtests of the FDT and PPT; 2) right and left hand JD and PG 3) all domains of WHOQOL-BREF. Producing three factors: *global dexterity function*, *global hand strength* and *global quality of life*. These factors were used for further data analysis

### Participants

	Gender		Affected Hand			Additional conditions	
	M	F	Dominant	Non D	Both	Yes	No
TF n=66	21 32%	45 68%	37 57%	18 27%	11 16%	35 53%	31 47%
Control n=66	23 35%	43 65%				27 41%	39 59%

**Mean Age**  
TF = 60.14 SD=11.34  
Control = 58.60 SD=11.55

## CONCLUSIONS

- TF has a wide impact - beyond the traditional focus on symptoms. These findings are noteworthy because TF is usually discussed in terms of symptoms.
- Hand function can explain a substantial portion of variance in activity and participation but not in quality of life.

## RESULTS

Factor analysis loadings for each sub-test used to form the factor of global dexterity function, hand strength & QOL

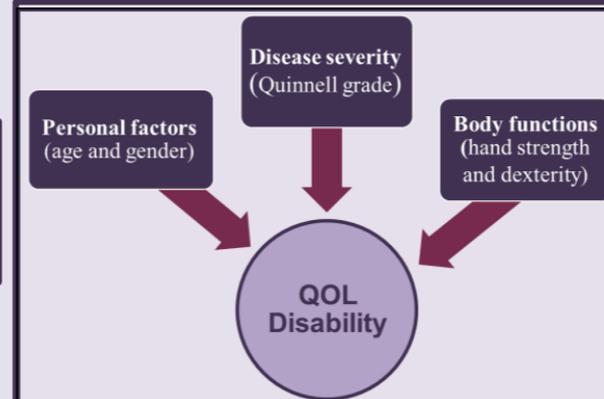
Global dexterity function					
FDT DH	FDT NDH	PPT DH	PPT NDH	PPT BH	PPT assembly
-0.608	-0.672	0.845	0.841	0.905	0.805
Global hand strength					
JD DH	JD NDH	PG DH	PG NDH		
0.859	0.845	0.892	0.886		
Global quality of life					
Physical	Psychological	Social	Environmental		
0.806	0.890	0.838	0.903		

FDT=Functional Dexterity Test; PPT=Purdue Pegboard Test; JD=Jamar dynamometer; DH=dominant Hand; NDH=Non Dominant Hand; BH=Both hands

Mean difference in A&P, QOL, dexterity and hand strength between TF and controls

	TF Group		Control Group		t	df	p	Effect Size
	Mean	(SD)	Mean	(SD)				
Quality of life	-0.33	( 0.88)	0.31	( 1.02)	3.8	126	0.001	0.733
Activity & participation	35.8	(21.29)	8.00	(10.62)	-9.2	95	0.001	0.967
Dexterity	-0.35	( 0.93)	0.34	( 0.95)	4.2	128	0.001	1.442
Strength	-0.37	( 0.92)	0.37	(0.94)	4.5	129	0.001	0.795

- Significant differences were found in all measures



### Hierarchical stepwise analysis A&P QOL

#### QOL

All the independent variables together explained 24.1% of the variance in QOL. The hierarchical analyses revealed that only the disease severity variable significantly contributed to the R-square change (12%).

#### Disability

All the independent variables together explained 42.4% of the variance in disability. The hierarchical analyses revealed that all three blocks each contributed significantly to the R-square change.

