Results

The results included the following parts

Part I: Sociodemographic characteristics of the studied sample, (table I, 2).

Part II: Assessment of the history of impaired physical mobility elderly from hospital medical report (table 3 (a,b), 4).

Part III: Daily living activities by using Barthel index among the impaired physical mobility elderly (table 5)

Part IV: Functional capacity of the impaired physical mobility elderly(table 6).

PartV: Attitude of impaired physical mobility elderly (toward themselves as regard psychological aspects (table 7)

Part VI : Life style of impaired physical mobility (table 8-9).

PartVII: Assessment of home environment of impaired physical mobility elderly(Table 10)

Part VIII : Relation of disability score of impaired physical mobility (table 11-17)

RESULTS

PART: 1 CHARACTERISTICS and Medical History of IMPAIRED PHYSICAL MOBILITY ELDERLY

Table (1): Percentage distribution of impaired physical mobility elderly regarding the sociodemographic characteristics (n=200)

Variable	% /n	Mean+SD
Sex		
Male	35.0	
Female	65.0	
Age group		65.6 ± 6.9
60-	60.0	
65-	13.0	
70-	27.0	
Marital Status:		
Single	3.5	
Married	48.0	
Divorced	6.0	
Widowed	42.5	
Educational Status		
Illiterate	31.5	
Read and write	26.0	
Secondary	17.0	
University	25.5	
Occupation		
Private	6.5	
Retired	83.5	
House wife	10.0	
Income		198.5 ± 88.8.0
-Insufficient (< 400)	77.5	
-Sufficient (> 400)	22.5	
Types of family		
Single	36.5	
Nuclear	18.5	
Extended family	45.0	
Smoking history		
Smoker among male	13.0	
Non smoker	87.0	

Table (1) shows that less than two-thirds of the impaired physical mobility elderly (65%) were females. Less than two-thirds of the sample (60%) aged 60-years. less than half of the sample (48%) was married. According to the educational status, less than one third of the sample (31.5%) was illiterate, the majority of the sample (83.5%) retired . Also the income of more than three quarters was insufficient (77.5%), while less than half of the sample (45%) was extended family. According to the smoking history, about slightly more than one tenth of impaired physical mobility elderly male (only) were smokers(13%),while majority of the impaired physical mobility elderly (87%) was non smokers.

Table (2): Percentage distribution of impaired physical mobility elderly(chronic disease) according to the types of clinic in Benha University Hospital**(n:200)**

Variable	**%**
Rheumatology	55
Diabetic	11
Cardiology	12
Chest	14
Hepatology	8

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Table (2) shows that more than half of patients attended the rheumatology clinic (55%).

Table (3,a): Percentage distribution of impaired physical mobility elderly regarding the medical history hospital record (n= 200)

Variable	%	Mean+SD
Causes of disability		
Arthritis	17.5	
Osteoarthritis	50.0	
Rheumatic arthritis	15.0	
Gouty arthritis	12.0	
Poly-myalgia rheumatic	-	
Fibro-myalgia	-	
Foot problems	3.0	
Fracture in hip joint	2.5.0	
Duration of disease(in years)		5.3 $\pm$ 4.7
1-	45.5	
5-	22.5	
10-	23.0	
-15	9.0	
Concometent chronic diseases		
Hypertension	9.5	
Coronary heart diseases	2.0	
Kidney diseases	18.5	
Liver diseases	21.5	
Diabetic diseases	16.0	
More than one diseases	32.5	
Number of hospitalization due to rheumatic disease		
Once	22.0	
Twice or more	59.0	
Other (Fracture of hip joint).	19.0	
Schedule for follow up visits to rheumatology clinic		
Every two weeks	2.5	
Every three weeks	13.0	
Every month	52.5	
Every six months	32.0	

* **Note**: Mutual Answers

It was observed from table (3,a) that half of the sample (50 %) of the impaired physical mobility patients had diagnostic osteoarthritis, the duration of disease in less than half of the (45.5%) patients was a year ago. More than half of patients attended the rheumatology clinic every month (52.5). The impaired physical mobility elderly had other associated diseases in less than one- third of cases (32.5%). While less than one-fourth of cases (21.5%) had liver diseases, followed by renal diseases in less than one fifth of patients (18.5). Diabetic cases in more than one sixth (16%), and hypertension in less than one tenth (9.5%) of cases. As regard number of hospitalization due to rheumatic disease, more than half of the sample (59%) had hospitalized twice, less than one-fourth of the sample (22%) had hospitalized once. While less than one fifth of the elderly (19%) had hospitalized due to fracture of hip joint.

Table (3,b): Percentage distribution of impaired physical mobility elderly regarding the medical history hospital record (n= 200)

Variable	Low	Normal	High	%
Blood picture				
Hemoglobin.	35.0	65.0	-	
White blood cells	-	8.0	92.0	
Electrolytes				
Uric Acid	34.0	34.5	31.5	
Serum calcium	40.5	3.0	56.5	
Serum phosphorus	34.5	61.5	4.0	
Kidney Function				
Serum Urea	22.5	50.0	27.5	
Creatinine	-	79.0	21.0	
Liver function				
SGOT	-	72.0	28.0	
SGPT	-	76.0	24.0	
Serum billirubin	-	76.0	24.0	
Blood sugar				
Fasting	23.5	68.5	8.0	
post prandial (after 2 hours)	39.5	47.0	13.5	
Random	39.5	48.0	12.5	
Urine analysis				
Sugar	-	90.5	9.5	
Albumin	8.0	5.0	41.0	
Electrolytes	-	-	100.0	
Serum analysis for bone				
Rheumatoid factor	-	33.5	66.5	
E.S.R.	-	-	100.0	
A.S.O	-	58.0	15.0	
C.R.P(C.reactive protein)	-	3.5	96.5	
Flexibility and joint function				
Disable				53.5
Positive joint movement				29.0
Passive joint movement				17.5

*Note: Mutual Answers.

It was observed from table (3,b) that, less than two third of patients (65%) their hemoglobin were normal the majority of patients, their white blood cells were high (92%), more than half of the sample their serum calcium were high (56.5%), more than one- fourth of the sample their kidney function were high (27%). While less than one- fourth of patients their creatinine were high (21%), more than one – fourth of patients their liver function were high (28%), urine electrolytes high in all patients as regard rheumatoid, two third of the sample was high (66%). While the all of the sample their E.S.R. were high (100%). Also the majority of the sample were high in c.reactive protein (69%), most of the sample received analgesics and narcotic (88%). While more than one tenth of patients were taken occupational and physiotherapy, more than half of the sample (53.5%) were disable. While more than on fourth of patients had (29%) positive motion. Followed more than one sixth (17.5) were passive motion.

Table (4): Percentage distribution of impaired physical mobility elderly regarding pain , site of pain methods to relive pain (no=200).

Studied variable	%
Occurrence of pain	
When pressure on joint	31.0
with movement and weight bearing.	8.5
When muscles cramps.	2.5
All time.	58.0
Site of pain	
Elbow	12
knew	50.0
Hip and knee together	38.0
Pain can be characterized by:	
Muscle resistance pain.	12.0
Pain and discomfort with range of motion.	84.0
Up cramps.	0.5
Able to move in environment	3.5
Methods to relive pain	
Take analgesics	-
Bed rest	-
Hot comprises on pain place.	-
All of them.	100
Medication	
Regular taken medication as doctor orders.	32.5
Takes medication when feeling or have severe pain in joint.	65.0
Irregular (no money).	2.5

Table (4) shows that more than half of the sample (58%) were pain in all time as regard site of pain, half of patients (50%) were in knee while more than on third (38.5%) were in hip and knee together. Regular taken medication as doctor orders were less than one third (32.5%) while takes medication when feeling pain in joint (65%). few patients were taken medication when have money (2.5%).

Part:11 Daily Living Activities of Impaired Physical Mobility Elderly

Table (5): Percentage distribution of impaired physical mobility elderly regarding daily living activities by using Barthel Index,(n=200).

Items	Unable to perform task(%)	Attempts task but unsafe(%)	Moderate help required(%)	Fully independent (%)
Appearance	37.5	37.5	22	3
Bathing	14.5	22.0	54.0	9.5
Food preparation	56.0	7.5	33.5	3
Doing personal toilet	19.5	21.5	53.0	6.0
Ascending and descending Stair	57.5	9.5	31.0	2.5
Dressing	26.0	16.0	42.5	15.5
Bowel control	10.0	24.5	54.5	6.0
Shopping	-	9.0	41.0	50.0
Travel	41.5	25.5	16.5	5.5
Home maintenance	61.0	17.0	22.0	-
Using Telephone	17.0	33.0	2.0	48.0
Laundry	35.0	51.0	11.5	2.5

*__Note__: Mutual Answers.

Table (5) showed that, more than half of impaired physical mobility elderly were unable to perform task of activities of daily living at home maintenance (61%), more than half of cases can practice neither stairs climbing (57.5%) nor feeding (56%). On the other hand., moderate help required to complete the task which was observed from more than half of impaired physical mobility elderly declare in bowel control (54.5%) and bathing self (54%), toilet (53%). And laundry (51%). While fully independent in performance task was observed from half of impaired physical mobility elderly in shopping (50%) and less than half of them in using telephone (48%).

Table (6): Percentage distribution of impaired physical mobility elderly regarding functional capacity, (n 200).

Items	Poor	Moderate	Good
	%	%	%
Personal activity			
Mobility	7.0	90.0	3.0
Dressing	11.5	73	15.5
Feeding	56	40.5	3.5
Bathing	14.5	76	9.5
Oral hygiene	74.0	20.5	5.5
Exercise	5.0	90.5	4.0
Hobbies, personal interests and employment	-	100.0	-
Sensory activity			
Hearings	-	29.0	71.0
Vision	-	100.0	-
Speech	3.0	34.0	63.0
Scalability			
Communication	7.5	8.0	84.5
Behavior	3.0	-	97.0
Mood	24.0	55.0	21.0
Intellectual activity			
Orientation	12.0	60.0	28. 0
Memory	10.0	72.0	18.0
Creativity	18.5	69.0	12.5
Physiological activity			
Digestion	14.0	79.0	7.0
Bowel function	5.5	88.5	6.0
Urinary function	13	81.0	6.0
Sleep	12.5	56.0	31.0

Table (6) showed that personal activity of the impaired physical mobility elderly were moderate mobility in majority of cases (90%), dressing in less than three-quarter (73) and oral hygiene had poor in less than three quarter of cases (74%). While less than one tenth had good in bathing (9.5%). As regard sensory activity is moderate in all of cases in seeing (100%) .While less than three quarters in hearing (71%), on the other hand, poor functional capacity was observed during speech (3%). As regard sociability had good behavior majority of cases (97%), communication (85%). While more than half of patients had moderate mood (55%). As regard intellectual activity had moderate memory in less than three quarter of cases (72%).While physiological activity had moderate functional capacity this was observed by the patient declare in bowel function (88.5) urinary function (81) and more than half of them in sleeping (56.0%). On the other hand, poor functional capacity was observed in digestion(14%).

Table (7) : Percentage distribution of the life style of impaired physical mobility elderly as regard food intake , and number of fluid glasses /daily (n=200).

Studied variable	(Total = 100%)
Diet	
a-**Number of meals\day**	
two meals	24.0
three meals	5.0
forth meals	71.0
No. of glasses of fluid intake\day.	
< 5	29.5
6 – 8	18.0
> 8	52.5

Table (7) showed that, less than three fourths of the sample (71%) of patients has 4 meals / day, more than half of patients (52.5%) used to drink more than 8 glasses daily.

Table (8): Percentage distribution of the impaired physical mobility elderly as regard practice of exercise **.(n=200)**

Studied variable	Regular practice %	Sometimes Practice %	No. Practice %
Walking for 30 min/per day	18.0	78.5	3.5
Hip exercise	-	50.0	50.0
Knee exercise	-	50.0	50.0
Knee and hip exercise	-	50.0	50.0
Shoulder exercise	-	50.0	50.0
Ankle exercise	-	50.0	50.0
Finger exercise	14.5	79.0	6.5
Hot and cold water exercise	37.0	58.0	5.0
Flexibility exercise	-	80.0	20.0

Table (8) showed that, the majority of the sample (80.0%) had sometimes flexible exercise. While finger exercise was sometimes practiced by more than three-fourths of patients (79.0%).Followed, more than three quarter (78.5) was sometimes walking for 30 min/per day. More over, half of the patients (50%) practiced shoulder, hip exercise, knee, knee and hip exercise, shoulder and ankle exercises. According to hot water exercise sometimes practiced in more than half of them(58%).

Table (9): Frequency distribution Attitude of impaired physical mobility elderly toward themselves as regard psychological aspects.

Items	Always%	Sometimes%	Never%
Compliance to doctors orders	39.5	53.0	7.5
Care toward general health	82.0	16.0	2.0
Listening to health education programs	63.0	37.0	-
Periodic check up	36.5	35.0	28.5
Prevention of infectious disease	50.0	50.0	-
Regular taking self -medication	71.0	29.0	-
Taking tonics without prescription	34.0	63.0	3.0
Coping at old age	12.5	74.5	13.0
Being productive at old age	7.0	90.0	3.0
Being social	41.5	58.5	-
Practice of walking at least 30 min per/daily	31.5	63.5	5.0

Table (9): described their attitude towards themselves. More than half of the sample (53%) were sometimes compliant to doctors orders and the majority of the sample were always careful for general health (82%). While as less than two-third of cases always listen to health education programs (63%). The majority of cases are sometimes being productive (90%). More than half of cases are sometimes slightly walking at least 30 minutes daily (63.5%) . Half of the cases are always preventing them selves from infectious disease (50%). Less than two-thirds of cases are sometimes taking tonics without prescription (63%). Nearly three quarters of cases are sometimes coping at old age (74.5%).

Table (10): Percentage distribution of impaired physical mobility elderly regarding home environment, (n=200).

Home environment	Good	Moderate	Poor
House ventilation			
Water supply		100.0	
safety water			
unsafely water		100.0	
Safety measure:		-	
Illumination of room		100.0	
Corridors / toilet illumination		100.0	
Kitchen	5.5	94.5	-
Toilet	2.5	95.0	2.5
Sleep room	-	100.0	-
Stair and corridor	5.0	90.0	5.0

Note: Mutual answer

Table (10) showed that home environment was generally moderate in all items. The kitchen moderate in most of homes (94.5%), majority of toilet in homes suitable or moderate (95.0%). Stairs and corridors in most of homes (90%), home cleanliness, and sleep room in all homes moderate (100.0) concerning stair and corridor poor in ten homes, toilet poor in only five homes.

Part : RELATION

Table (11): Relation of disability scores of impaired physical mobility with their types of the family.

Type of family	**Disability (Range ,flexibility and joint function)**			**Total**
	Disable	**Positive joint movement**	**Passive joint movement**	
	%	%	%	
Single	40.2	13.8	62.9	36.5
Nuclear	16.8	24.1	14.3	18.5
Extended family	43.0	62.1	22.9	45.0
Total	**100**			

X^2 = 24.41 P< 0.01

Table (11) showed that disability scores of impaired physical mobility elderly were significantly higher among extended family (all family lives in one home) ($p < 0.01$).

Table (12): Relation of disability scores of impaired physical mobility with their income.

Income	**Disability (Range ,flexibility and joint function)**			**Total**
	Disable	**Positive joint movement**	**Passive joint movement**	
	%	**%**	**%**	
< 400	50.3	33.5	16.2	77.5
≥ 400	15.6	28.9	55.6	22.5
Total	**100**			

X^2 =31.84 P < 0.01

Table (12) showed that disability scores of impaired physical mobility elderly were significantly higher among elderly income less than 400pound (P < 0.01).

Table (13): Relation of disability scores of impaired physical mobility with their age group (in years)(n=200)

Age (yrs)	**Disability (Range ,flexibility and joint function)**			**Total**
	Disable	**Positive joint movement**	**Passive joint movement**	
	%	%	%	
60-	65.4	41.4	74.3	60.0
65-	7.5	27.6	5.7	13.0
≥ 70	27.1	31.0	20.0	27.0
Total	**100**			

X^2 =19.48 P < 0.01

Table (13) showed that disability scores were significantly higher among impaired physical mobility who were aged 60 years (P< 0.01) .

Table (14): Relation of disability scores of impaired physical mobility with their home environment(n=200)

Home Environment	**Disability(Range ,flexibility and joint function)**			**Total**
	Disable	**Positive joint movement**	**Passive joint movement**	
	%	%	%	
Good environment	16.8	19.0	40.0	21.5
Moderate environment	83.2	81.0	60.0	78.5
Total	**100**			

X^2 = 8.71 P< 0.05

Table (14) showed that disability scores were significantly higher among impaired physical mobility who were lives in moderate environment (P < 0.05).

Table (15): Relation of disability scores of impaired physical mobility with their activity daily living (n=200)

Activity daily living	**Disability (Range ,flexibility and joint function)**			**Total**
	Disable	**Positive joint movement**	**Passive joint movement**	
	%	%	%	
Attempts task but unsafe	20.6	13.8	17.1	18.0
Need some help	79.4	86.2	82.9	82.0
Total	**100**			

X^2 = 1.89 P > 0.05

Table (15) showed that disability scores were no significantly according to activity daily living of impaired physical mobility elderly.

Table (16): Relation of disability scores of impaired physical mobility with their Functional capacity(n=200)

Functional capacity	**Disability(Range ,flexibility and joint function)**			**Total**
	Disable	**Positive joint movement**	**Passive joint movement**	
	%	%	%	
Moderate	65.4	46.6	65.7	60.0
Good	34.6	53.4	34.3	40.0
Total	**100**			

X^2 = 6.156 P <0.05

Table (16) showed that disability scores were significantly higher according to functional capacity among impaired physical mobility elderly.

Table (17): Relation of disability scores of impaired physical mobility with their attitude toward them selves (n=200)

Attitude	**Disability(Range ,flexibility and joint function)**			**Total**
	Disable	**Positive joint movement**	**Passive joint movement**	
	%	%	%	
Always	68.2	51.7	85.7	66.5
Sometimes	31.8	48.3	14.3	33.5
Total	**100**			

X^2 = 11.627 P < 0.01

Table (17) showed that disability scores were significantly higher among impaired physical mobility who were attitude always (P < 0.01).

To summarized whole parts according to research question, the (table 1,9,12,13) the results showed that the impaired physical mobility affect the psychosocial older adults and disability scores of impaired physical mobility elderly were significantly higher among extended family($p<0.01$), aged 60-65 years($p<0.01$), their income less than 400pound ($p<0.01$), and impaired physical mobility with their attitude toward themselves were positive ($p<0.01$).

Also, the impaired physical mobility affect on the daily living activity of older adults, the results revealed that (table 5,6,16), less than of two thirds of impaired physical mobility were unable to perform task (61%) in home maintenance, more than half of impaired physical mobility elderly can practice neither stair climbing nor feeding (57,5%), and disability scores were significantly higher according to functional capacity among impaired physical mobility elderly($p<0.05$), while their activity daily living of impaired physical mobility elderly no significant ($p>0.05$).